February 2021

Binder 049, Dicrocoelidae Pc-Py [Trematoda Taxon Notebooks]

Harold W. Manter Laboratory of Parasitology

Pintneria Poche, 1907

Syn. *Hoploderma* Cohn, 1903, preoccupied

Generic diagnosis. — Dicrocoeliidae, Dicrocoeliinae, Pintneriini: Body elongate, somewhat broadened posteriorly, spinulate. Acetabulum rather small, in anterior half of body. Oral sucker oval, larger than acetabulum. Ceca reaching further back of equator. Testes diagonal, hind testis dorsal to acetabulum. Cirrus pouch pyriform, pre-acetabular. Genital pore median, about halfway between two suckers. Ovary submedian, post-testicular. Receptaculum seminis postovarian. Vitellaria extending in lateral fields from oral sucker to near cecal ends. Uterus occupying almost entire hindbody; eggs numerous. Excretory vesicle tubular, obliquely dorsoventral. Intestinal parasites of *Draco*.

Genotype: *P. mesocoelium* (Cohn, 1903) Poche, 1907 (Pl. 58, Fig. 711), syn. *Hoploderma m.* C., in *Draco volans;* Java.

Pintneria Poche, 1907

Syn. *Hoploderma* Cohn, 1903, preoccupied

Generic diagnosis. — Dicrocoeliidae, Dicrocoeliinae, Pintneriini: Body elongate, somewhat broadened posteriorly, spinulate. Acetabulum rather small, in anterior half of body. Oral sucker oval, larger than acetabulum. Ceca reaching further back of equator. Testes diagonal, hind testis dorsal to acetabulum. Cirrus pouch pyriform, pre-acetabular. Genital pore median, about halfway between two suckers. Ovary submedian, post-testicular. Receptaculum seminis postovarian. Vitellaria extending in lateral fields from oral sucker to near cecal ends. Uterus occupying almost entire hindbody; eggs numerous. Excretory vesicle tubular, obliquely dorsoventral. Intestinal parasites of *Draco*.

Genotype: *P. mesocoelium* (Cohn, 1903) Poche, 1907 (Pl. 58, Fig. 711), syn. *Hoploderma m.* C., in *Draco volans;* Java.

PINTERIA Poche,1907

Synonym: Hoploderma Cohn,1903 (preoccupied)

Diagnosis as given by Cohn,1903:
Spined Fasciolidae with suckers near together. Oral sucker larger. Testes dorsal to the ventral sucker, tandem. Ovary close behind the testes. Laurer's canal present. Cirrus and cirrus sac present. Ceca extending a little beyond midbody, esophagus long. Vitellaria well developed and reaching to the oral sucker. Uterus in the posterior half of the body.

Type : P. mesocoelium (Cohn,1903)
from the small intestine of Draco volans
Locality: Eastern Java.

According to Cohn this genus is related to Dicroceelium.

PRINTERS

LOOSE LEAF
ORGANIZER

SCHEDULE

ERIOD OR TIME								
COURSE MON. NSTRUCTOR								
COURSE TUE. NSTRUCTOR								
COURSE WED. NSTRUCTOR								
COURSE THU. NSTRUCTOR								
COURSE FRI. NSTRUCTOR								
COURSE SAT. NSTRUCTOR								

NAME _____

ADDRESS _____

SCHOOL _____ TELEPHONE _____

Platynosomum Looss, 1907

Generic diagnosis. — Dicroceoliidae, Dicrocoeliinae, Eurytrematini: Body elongate, flattened, with maximum width at level of testes. Suckers close to each other, equal or subequal, pharynx small, esophagus short, ceca terminating short of posterior extremity. Testes large, symmetrical, immediately postacetabular, indented or not. Cirrus pouch plump, preacetabular. Genital pore level with intestinal bifurcation. Ovary submedian, posttesticular. Receptaculum seminis and Laurer's canal present. Uterine coils occupying nearly whole hindbody, overreaching ceca laterally; eggs rather small, dark brown when mature. Vitellaria extending in extracecal fields for a short distance, commencing at or behind

acetabular zone, rarely in acetabular zone. Excretory vesicle tubular. Parasitic in liver, gall bladder, etc. of birds and mammals.

Genotype: ***P. semifuscum*** **Looss, 1907 (Pl. 62, Fig. 748), in** ***Circaetus gallicus;*** **Geneva.**

Other species from birds:

P. deflectens (Rud., 1819) Nicoll, 1915, in ***Hylophylus hypozanthus hypozanthus;*** Brazil.

P. illiciens (Braun, 1901) Kossack, 1910, syn. ***Dicrocoelium voluptarium*** Braun, 1901; ***Eurytrema brauni*** Lent et Freitas, 1937, in ***Rhamphastus*** sp., ***Rupicola rupicola***, ***Falco*** sp., ***Rupornis magnirostris nattereri***, ***Micrastur ruficollis***, ***Crotophaga ani***, ***Tyto alba tuidara;*** Brazil. Also in ***Buteo platypterus;*** Ohio and Wisconsin.

P. proxilliciens (Canavan, 1937) Heidegger et Mendheim, 1938, syn. ***Platynosomum fallax*** Heidegger et Mendheim, 1938, ***P. ventropliicatum*** Heidegger et Mendheim, 1938, in ***Cacatua sulfurea;*** Malay Arch.

P. reficiens (Braun, 1901) Travassos, 1916, in ***Falco nitidus;*** Brazil.

P. ventricosum (Rud., 1809) Trav., 1819, in ***Luscinia luscinia;*** Europe.

Representatives from mammals:

P. fastosum Kossack, 1910, (Pl. 91, Fig. 1097), syn. *Dicrocoelium lanceatum* var. *symmetricum* Baylis, 1918, in liver of *Oncoides minuta*, *Felis catus domesticus*, *Grison vittata*, *Herpailurus yaguarondi yaguarondi;* Brazil, Cuba, North America, Africa. *Subulina octona*, *Anolis cristatellus*, cat — Maldonado (1945, 46).

Genus Platynosomum Looss, 1907

Diag.: Dicrocoeliinae; Body lance-like, greatest breadth at the summit of the testes. Posterior to this, the body is strongly pointed. Suckers almost the same size. Testes symmetrical, compact, at the same height, posterior to the ventral sucker. Cirrus sac bulky, sack shaped. Ovaries post-testicular.

Host: Birds; in the liver.

Type species: Platynosomum semifuscum Looss, 1907

Others: P. acuminatum Nicoll .. in birds
P. arietis .. in mammals
P. alectoris Nöller & Enigk, 1932 in birds
P. clathratum (Deslongchamps, 1824) in birds Apus apus
P. concinnum Braun, 1901 in mammals to Eurytrema
P. deflectens (Rud.) in birds
P. delectans (Braun, 1901) in birds
P. fastosum Kossack, 1910 in mammals
P. furnarii in birds
P. illiciens (Braun, 1901) in birds
P. lubens (Braun, 1901) in birds
P. marquesi Travassos, 1922 in birds to Oswaldoia
P. mazzai in birds
P. philippinorum Tubangui, 1928 in birds ? in Bat
P. plancipitis Cameron, 1928 in mammals synonym of P. fastosum
P. reficiens (Braun, 1901) in birds
? P. symmetricum in mammals
P. voluptarium (Braun, 1901) in birds

P. fallax Heidegger & Mendheim, 1938 in birds (synonym. P. ventroplicatum Heidegger & Mendheim 1937)

P. proxilliciens (Canavan, 1937) in birds (Cacatua sulphurea)

P. petiolatum (Railliet, 1901) Looss, 1907

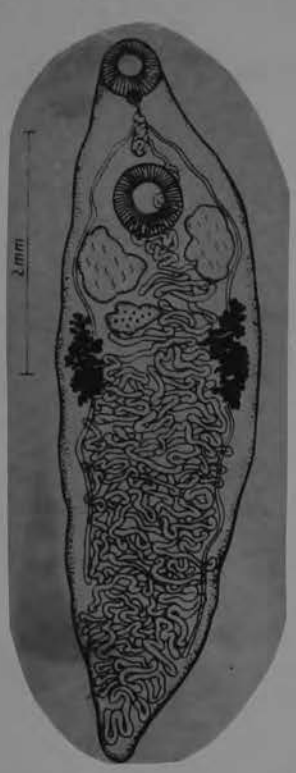
P. allentoshi Foster, 1939
P. semifuscum Looss, 1907
P. philippinorum congolensis Sandground, 1937 from bat
P. angrense Travassos, 1919
P. microrchis Travassos, 1916

P. panduriforme Raill. 1900

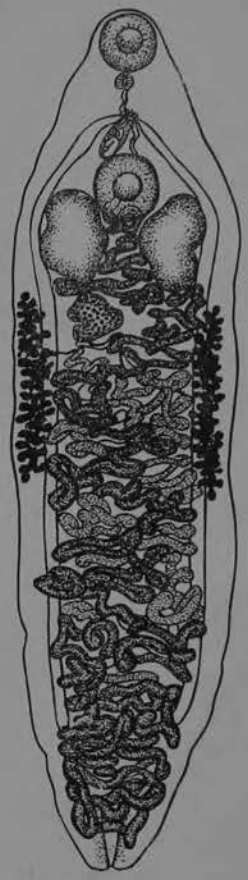
Platynosomum semifuscum Looss, 1907

(Рис. 177а)

Хозяева: орел-змееяд (*Circaetus gallicus*), пустельга (*Falco tinnunculus*).
Локализация: печень.
Места обнаружения: Италия, СССР (Западная Сибирь).
Описание вида (по Лооссу, 1907). Длина тела 9,5—10,25 мм, наибольшая ширина 2,4—2,8 мм. Последняя находится на высоте семенников



From Odening, 1964



177a

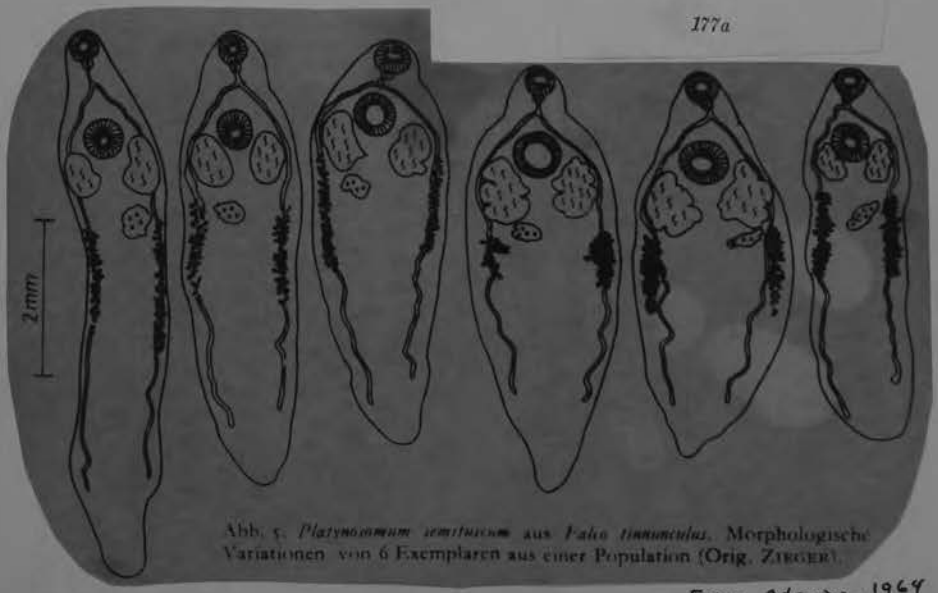


Abb. 5. *Platynosomum semifuscum* aus *Falco tinnunculus*. Morphologische Variationen von 6 Exemplaren aus einer Population (Orig. ZIEGER).

From Odening, 1964

-OVER-

4. *Platynosomum semifuscum* Looss, 1907

Wirt/Herkunft. *Falco t. tinnunculus* L., Turmfalke (Accipitriformes, Falconidae) / Berlin, Sektion am 1. 9. 1963 (1 ♂).
Lokalisation. Gallengänge.
Präparat-Nr. kT 16/93–96 (26 Exemplare).
Beschreibung (vgl. Abb. 4–5 und Tabelle 3).

Cuticula im Vorderkörper mit sehr feinem Spitzchenbesatz sowie bisweilen mit einigen unregelmäßig angeordneten Papillen; Körper typisch lanzettförmig bis langgestreckt elliptisch, 4,2–7 mm lang, maximale Breite meist kurz hinter der Gonadenregion, 1,4 bis 2 mm; Oesophagus sehr kurz; Darmschenkel bis hinter die Mitte der Entfernung zwischen hinterer Grenze der Dotterstöcke und Körperhinterende oder ganz bis ins Körperhinterende reichend; Saugnäpfe gleich groß oder Bauchsaugnapf etwas größer als Mundsaugnapf; Testes bedeutend größer als das Ovarium, parallel zueinander neben und hinter dem Bauchsaugnapf gelegen, gelappt; Ovarium hinter dem linken Testis, unregelmäßig gestaltet, mit Einkerbungen; Genitalporus unmittelbar vor der Darmgabelung; Cirrusbeutel mit gewundener Vesicula seminalis, Pars prostatica und Cirrus; Cirrusbeutel-Basis vor dem Vorderrand des Bauchsaugnapfs; Dotterstöcke auf der Höhe des Ovariums oder des hinteren Bereiches der Testes beginnend und bis kurz hinter die Körpermitte reichend, weniger als das mittlere Drittel, oder aber das 2. Viertel oder 3. Sechstel der Körperlänge, oder etwas mehr als das 2. Körperviertel einnehmend, extracaecal, aus kleinen, breitgestreckten Follikeln bestehend, die zu unregelmäßigen Rosetten oder Trauben zusammengelagert sind; Uterusschlingen den gesamten intercaecalen Körperbereich hinter den Gonaden ausfüllend; Dotterreservoir, Schalendrüse und Receptaculum seminis median oder submedian neben dem Ovarium oder etwas nach hinten verschoben; Eigröße 0,038–0,048 × 0,024 bis 0,031 mm.

Tabelle 3. Platynosomum semifuscum, Maße von 10 Exemplaren in mm

Körperlänge	7	5,5	5,8	6,2	6	5,5	5	5	4,2	5
Maximale Körperbreite	1,6	1,7	1,9	1,9	2	1,4	1,5	1,7	1,5	1,5
Mundsaugnapf										
Länge	0,448	0,382	0,411	0,455	0,404	0,367	0,418	0,382	0,404	0,411
Breite	0,455	0,375	0,433	0,470	0,462	0,477	0,404	0,396	0,426	0,375
Bauchsaugnapf										
Länge	0,602	0,477	0,565	0,587	0,587	0,440	0,506	0,514	0,536	0,477
Breite	0,573	0,433	0,543	0,536	0,528	0,448	0,543	0,499	0,558	0,470
Pharynx										
Länge	0,117	0,132	0,125	0,139	0,139	0,117	0,147	0,161	0,125	0,117
Breite	0,161	0,147	0,125	0,154	0,154	0,132	0,088	0,132	0,088	0,110
Oesophaguslänge	0,132	0,066	0,103	0,095	0,169	0,125	0,081	0,022	0,059	0,073
Testes										
Länge	0,771 bis 0,807	0,734 bis 0,976	0,587 bis	0,683 bis 0,697	0,793 bis 0,918	0,661 bis 0,719	0,587 bis 0,697	0,477 bis 0,514	0,514 bis 0,624	0,631 bis 0,734
Breite	0,551 bis 0,602	0,492 bis	0,345 bis 0,514	0,440 bis 0,587	0,573 bis 0,661	0,440 bis 0,455	0,514 bis	0,389 bis 0,411	0,367 bis 0,496	0,499 bis 0,536
Ovarium										
Länge	0,411	0,264	0,272	0,279	0,220	0,264	0,264	0,191	0,220	0,176
Breite	0,440	0,528	0,477	0,551	0,587	0,323	0,440	0,396	0,448	0,404
Dotterstöcke, Länge	1,270 bis 1,285	0,954 bis 1,285	0,697 bis 0,969	0,807 bis 0,918	1,028 bis 1,042	0,991 bis 1,138	0,807 bis 1,064	0,807 bis 1,101	0,807 bis 1,174	0,624 bis 0,901
Cirrusbeutel, Länge	0,440	0,352	0,382	0,352	0,418	0,367	0,330	0,242	0,235	0,294

Bemerkungen.

Diese Art (Species typica des Genus *Platynosomum* Looss, 1907) wurde ursprünglich anhand zweier Exemplare aus *Circaetus gallicus* (Italien) von Looss (1907) beschrieben. Später wurde ein Exemplar von Skrjabin in *Falco tinnunculus* (Westsibirien) gefunden. Dollfus (1958) fand 8 Exemplare in einem *Circaetus gallicus* aus Marokko, weitere Funde (ohne Beschreibung) wurden von Sulgostowska (1960) aus *Circus aeruginosus* von Masuren gemeldet. Das Looss'sche Originalmaterial zeigt absolut größere Körper- und Organmaße als die mir vorliegenden Exemplare, der Durchmesser des Bauchsaugnapfs ist höchstens um 40 bis 60 µm größer als der des Mundsaugnapfs; das Skrjabin'sche Exemplar entspricht in der Größenordnung meinem Material, der Durchmesser des Bauchsaugnapfs ist um 80 µm größer als der des Mundsaugnapfs. Bei meinem Material beträgt dieser Unterschied der Saugnapfdiameter 40 bis über 100 µm. Das Material von Dollfus entspricht in der Größenordnung dem meinen, der Durchmesser des Bauchsaugnapfs ist bis 80 µm größer als der des Mundsaugnapfs. Die Eier des Materials von Looss, Skrjabin und Dollfus sind etwas kleiner als die des vorliegenden.

From Odening, 1964

Dicrocoeliidae

Platynosomum semifuscum Looss, 1907

Length: 9.5 to 10.25. Flattened

Width: 2.4 to 2.8 , at level of testes

Oral sucker: 0.65 to 0.67

Acetabulum: (size:) 0.67 to 0.71, about 1/5 from anterior end.
(position):

Sucker ratio: about equal

Esophagus: about 3 times longer than pharynx
Pharynx: small, 0.18 to 0.19 in diameter

Genital pore (location): slightly to left at level of bifurcation.

Testes, shape: longer than wide, with indented surface

location: symmetrical, overlapping ventral sucker
Cirrus sac (extent): to acetabulum, 0.7 to 0.8 by 0.25 to 0.3
Ovary, shape: small, irregularly triangular

location: behind left or right testis

Vitellaria: lateral, extratcecal, from posterior edge of testes about to middle of body.

Eggs: 34 to 39 by 27 to 29 µ

Other features:

Fig. 3. *Platynosomum semifuscum* n. sp. Konserviertes Exemplar von der Bauchseite. Vergr. ca. 14.

Host: Circetus gallicus

Locality: Geneva

Reference: Cent. Bakt.,43,604-613.

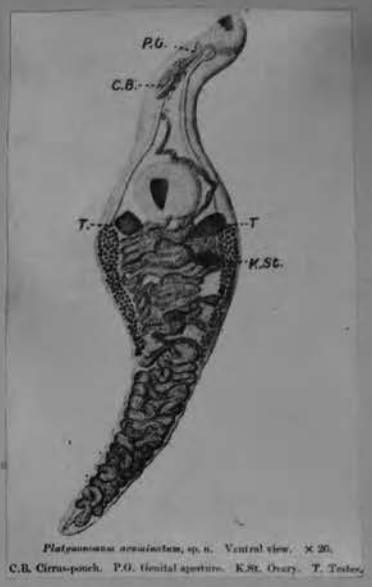
Comparisons: Near "Dicrocoelium illiciens Braun"

Life cycle:

f3568p1b

Dicrocoeliidae

Platynosomum acuminatum Nicoll, 1915



Platynosomum acuminatum, sp. n. Ventral view. × 20.
C.B. Cirrus-pouch. P.G. Genital aperture. K.St. Ovary. T. Testes.

Length: 6.3

Width: 1.5 just behind ventral sucker

Oral sucker: 0.45 by 0.40 deep

Acetabulum: (size:) 0.6 by 0.75
(position): 1.97 from anterior end

Sucker ratio:

Esophagus: short, 0.25
Pharynx: 0.17 by 0.15

Genital pore (location): over the pharynx

Testes, shape: ovoid

location: symmetrical, immediately postacetabular
Cirrus sac (extent): 0.7 by 0.16
Ovary, shape: oval, smaller than testes

location: behind left testis

Vitellaria: lateral, from level of testes, about ⅓ body length to 2.3 mm. from posterior end

Eggs: 33 to 39 by 18 to 20

Other features:

Host: liver of kestrel, Cerchneis tinnunculus

Locality: Scotland

Reference: Proc. Zool. Soc. London, 1915 p. 87-89

Comparisons: Most like P.deflectens and P.petiolatum. P.deflectens is smaller with relatively larger suckers, & cirrus sac is short and plump. P.petiolatum is larger and the cirrus sac extends past border of ventral sucker

Life cycle:

Platynosomum acuminatum Nicoll, 1915: Only one specimen of this species was obtained from the liver along with sixteen specimens of *Lyperosomum kakea*. It agrees in most respects with *Platynosomum acuminatum* Nicoll, 1915. The only points of difference being the dimensions of the body and the vitellaria lying a short distance behind the testes.

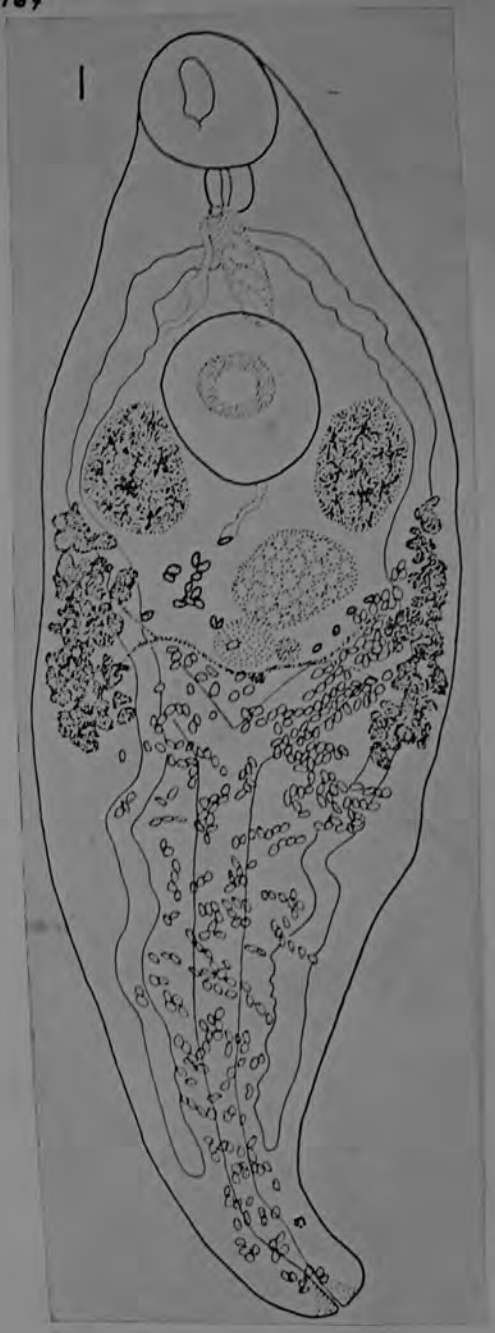
Bhalerao 1927

f3568p1b

KINGSTON AND COSGROVE, 1967

Platynosomum amazonensis ~~sp. nov~~.

DESCRIPTION: (Fig. 1) Body of mature specimens elongate, ellipsoidal, anterior end blunt, expanding toward widest point at level of testes, posterior part of body tapering behind vitellaria, body length 3.30 ([3.70] 3.02–4.93), body width 1.08 ([1.28] 0.99–1.72). Ratio of body width/length 1:3.05. Cuticle without spines, papillae, or scales. Oral sucker subterminal, round-oval 0.306 ([0.392] 0.300–0.465), mouth opens ventrally. Acetabulum round-oval 0.360 ([0.451] 0.360–0.660), distance between suckers (middle of oral to middle of acetabulum) 0.80 ([0.771] 0.570–1.100). Oral sucker: acetabulum ratio: 1:1.17([1.15] 0.97–1.26). Prepharynx absent. Pharynx globular, 0.120 ([0.141] 0.120–0.150) located at posterior margin of oral sucker, sometimes overlapping margin. Oesophagus narrow, thin-walled, sometimes curving, bifurcates approximately midway between oral and ventral suckers to form intestinal caeca which extend toward lateral margins of body turning posteriorly at level of acetabulum and extending posteriorly in sinuous curves, terminate 0.390 ([0.390] 0.300–0.540) from posterior end of body. Male genital pore submedian, opens at level of posterior margin of pharynx, 0.384 ([0.470] 0.380–0.540) from anterior end of worm. Cirrus pouch elongate, 0.300 in length by 0.090 in width ([0.297 by 0.122] 0.150–0.450 by 0.090–0.135) contains an unarmed, eversible cirrus and a coiled seminal vesicle. posterior bulbous portion of cirrus pouch in contact with anterior margin of acetabulum or lies anterior to acetabulum. Testes symmetrical, round to elongate oval, 0.300 by 0.228 ([0.247 by 0.199] 0.135–0.345 by 0.135–0.345) with indented margins lateral to and in zone of acetabulum. Ovary transversely elongate, lobulate or round, 0.192 by 0.300 ([0.213 by 0.252] 0.200–0.400 by 0.130–0.274) posterior to posterior margin of testes, submedian. Seminal receptacle submedian, globular, posterior and dorsal to ovary. Mehlis' gland lateral to seminal receptacle. Laurer's canal not seen. Vitellaria follicular, largely extracaecal, commence in posterior testicular zone, composed of large sized follicles, extend 0.64–0.76 ([0.515] 0.220–0.825) posteriorly beyond mid-body. Paired vitelloducts arise laterally in middle or, rarely posterior region, of vitelline field, extend to vitelline reservoir on midline of body. Uterus mostly intercaecal contains light, undeveloped eggs in portion going posteriorly and dorsally from ovarian region, descends in wide loops to posterior region of hindbody where it turns and ascends in coils ventrally to region of ovary, passes dorsally to acetabulum and cirrus pouch and opens to exterior through female genital pore at level and next to opening of male genital pore. Excretory pore posterior, terminal; excretory bladder cylindrical, elongate, bifurcates immediately posterior to ovary; primary excretory branches extend laterally to level of testes. Ova from terminal uterus dark-brown, thick-shelled, operculate, containing fully developed miracidia, each with two large oval posterior vesicles; 0.037 by 0.026 (0.028 by 0.021–0.043 by 0.030).



HOSTS: *Callimico goeldii* (Thomas, 1904). *Saguinus nigricollis* (Spix, 1823).

HABITAT: Biliary ducts.

LOCALITY: South America, Amazon Headwaters.

TYPE SPECIMEN: Holotype and four paratypes in USNM Helminthological Collection. Nos. 61760, 61761, and 61762, respectively. The name of this species refers to the area of origin of the host.

-OVER-

Discussion

Nineteen genera of Dicrocoeliidae are wholly or in part found in mammals (Yamaguti, 1958). Species from seven of these genera are found in primates: five genera, *Brodenia* Gedoelst, 1913; *Concinnum* Bhalerao, 1936, *Dicrocoelium* Dujardin, 1845, *Eurytrema* Looss, 1907, and *Leipertrema* Sandosham, 1951, are found in primates in Africa, Japan, and Borneo; two genera, *Athesmia* Looss, 1899 and *Controrchis* Price, 1929, are found in New World primates.

The new species of dicrocoeliids described above, *Platynosomum amazonensis* sp. nov. and *P. marmoseti* sp. nov. recovered from *Callimico* and *Saguinus*, are not placed in *Brodenia* since they have longer intestinal caeca and lack the serrate margins of the body characteristic of that genus; they are not placed in *Concinnum* or *Leipertrema* since they have longer intestinal caeca and more extensive vitelline fields; they are not placed in *Dicrocoelium* since they do not possess tandem or obliquely placed testes; and they differ from species of *Eurytrema* by different body shape, more extensive vitelline fields, and by having the genital opening bi- or prebifurcal. They clearly do not belong to the New World genera *Athesmia* or *Controrchis*, the former genus being distinguished by unilateral postovarian vitellaria and the latter genus by the testes being separated longitudinally by the acetabulum.

Platynosomum amazonensis sp. nov. and *P. marmoseti* sp. nov. are placed in the genus *Platynosomum* Looss, 1907, owing to shape, acetabular or postacetabular position of symmetrical testes, and origin of the vitellaria in the testicular field or immediately post-testicular.

Seven species have been described as belonging to this genus: six from birds and one from mammals. The species from birds are *P. semifuscum* Looss, 1907 (type), *P. deflectens* (Rudolphi, 1819), *P. illiciens* (Braun, 1901), *P. proxilliciens* (Canavan, 1937), *P. reficiens* (Braun, 1901), and *P. ventricosum* (Rudolphi, 1809); while one species, *P. fastosum* Kossack, 1910, has been described from mammals (Yamaguti, 1958). Travassos (1944) included *P. alectoris* Noeller and Enigk, 1933 from birds and then placed it in the genus *Conspicuum* (placed in *Lyperosomum* by Shtrom, 1940 and concurred in by Skrjabin and Evranova, 1952). Skrjabin and Evranova, 1952, include *P. brauni* Freitas and Lent, 1937 (considered a synonym of *P. illiciens* by Travassos, 1944 and Yamaguti, 1958), *P. fallax* Heidigger and Mendheim, 1938 (considered a synonym of *P. proxilliciens* by Travassos, 1944 and Yamaguti, 1958), *P. muris* Stscherbakova, 1942 (reassigned to the genus *Skrjabinus* (Bhalerao, 1936) Shtrom, 1940 by Yamaguti, 1958) and *P. voluptarium* (Braun, 1901) (considered a synonym of *P. illiciens* by Travassos, 1944, and Yamaguti, 1958). With the exception of *S. muris* the hosts of the above species are birds; *S. muris* is found in a vole, *Sylvaemus sylvaticus*.

P. amazonensis sp. nov. and *P. marmoseti* sp. nov. differ from *Platynosomum* species found in birds in host distribution, and in the following: They are smaller than *P. semifuscum* and have different sizes and ratios between the suckers. They differ from *P. deflectens* by having larger testes and by a different vitelline: testes distribution. They differ from *P. illiciens* by having smaller testes and ovary and a less extensive uterine development. They differ from *P. reficiens* in having less extensive vitelline distribution. They differ from *P. ventricosum* by having smaller, not tandem, testes and by having smaller eggs.

P. amazonensis sp. nov. and *P. marmoseti* sp. nov. differ from *P. fastosum* found in mammals in body size and proportions, in having smaller testes and ovary, in the lesser extent of the vitellaria, smaller size of ova, and kind of host. They differ from *S. muris* found in a vole in the markedly lesser anterior extent of the vitellaria.

Platynosomum amazonensis sp. nov. recovered from *C. goeldii* and *S. nigricollis* differs from *P. marmoseti* sp. nov. recovered from *S. nigricollis* in body length and width and in the ratio of these measurements; testes position and size; origin, position, and extent of vitellaria; position of the male genital opening; relative positions of oral and ventral suckers; and extent of uterine development. These two species (while both occur in *Saguinus*) have not been found simultaneously in the same individual host. It is considered most likely that the tamarins are from different localities in South America.

The genus *Platynosomum* thus contains species from a wider host range than has hitherto been reported. Further examination of the livers and gall bladders of South American primates (now being used in many different types of study in this country) should reveal much more of interest to the student of dicrocoeliid trematodes.

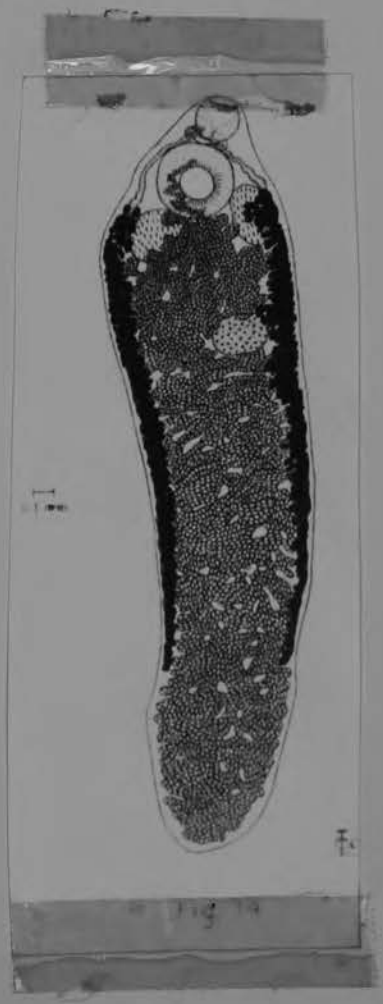
Dicrocoeliidae

Platynosomum angrense Travassos, 1919

4.5 by 1. mm.
Oral sucker 0.28
Acetabulum 0.48 ; about 0.12 from oral sucker
Pharynx about 0.11 in diameter.
Esophagus delicate.
Genital pore median, at bifurcation
Testes round, symmetrical, widely separated, partly overlapping acetabulum
Ovary round, median, about ½ size of testes, posterior to testes.
Vitellaria cecal and extracecal, from zone of acetabulum to 1. mm. from posterior end.
Eggs 35 to 42 by 21 to 24.

Host: Atilla cinereus (a bird)
Locality: Brazil
Reference: Arch.Exc.Agai.Med.Vet., 3 : 23-24. 1919

P.angrense and P.microrchis are transitions between Platynosomum and Oswaldioa according to Travassos.
P.angrense differs from P.microrchis in extent of vitellaria.



Platynosomum australiense

Syn. **Zonorchis australiensis** ~~sp. nov.~~ Sandars, 1958

The body is lancet-shaped, 2-11·5 mm. in length; maximum width across the esticular zone 1·0-2·25 mm. Anteriorly, it narrows sharply to form 'shoulders,' and apers more gradually posteriorly to form a small but well-defined 'tail.' There is a very narked variation in this species in both body size and shape, which may be attributed rgely to the age of the fluke. Young forms are relatively much broader anteriorly, but ave the narrow and well-marked 'tail' region. With increasing age, the uterus becomes ore and more swollen with eggs, and the posterior region of the worm becomes corres-ondingly wider. This continues until, in an old fluke, the posterior region of the body completely occupied by a much-coiled uterus crowded with eggs (Plate V, figs. 1-4). t is interesting to note that there is a great variation in the size of flukes recovered from ifferent individual hosts, e.g., from one host flukes measured 2·0-11·5 mm., from other osts 4·0-6·5 mm., 8·0-9·0 mm., 7·0-9·3 mm., and 10·0-11·5 mm. respectively. This is rue also of the corresponding range of measurements of the various organs. Usually ll the parasites recovered from one host were of approximately the same size and shape, nd presumably of the same age. In a few instances, worms of two distinct ranges in shape and size were recovered from the same host; presumably they belonged to two infestations acquired by the one host at different times. The measurements of flukes from one individual host cannot, therefore, be regarded as its true range.

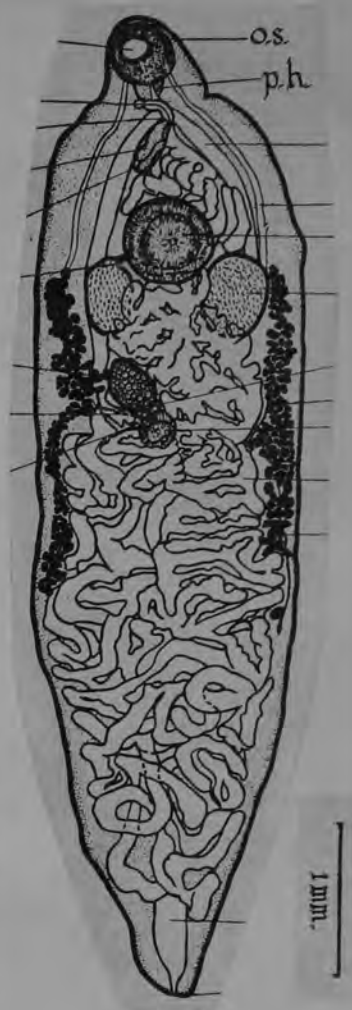
The diameter of the terminal oral sucker is 0·21-0·49 mm.; in a few specimens it is oval. The diameter of the acetabulum is 0·28-0·63 mm.; it also may be oval in outline. It is approximately one-fifth of the body length from the anterior end. The ratio of the length of the oral sucker to the length of the acetabulum is 1 : 1·3-2·0.

The oral opening is subterminal (fig. A). The diameter of the muscular pharynx is 0·07-0·21 mm. The oesophagus is short, and from it the intestinal caeca run laterally in a slightly sinuous course to the posterior region of the body. They are enveloped by the vitelline fields and do not extend into the extreme 'tail' region. In many specimens these caeca are difficult to trace, being hidden by the vitelline follicles as well as by the uterine coils.

The excretory vesicle, which is conspicuous in the 'tail,' opens terminally. The longitudinal paired ducts, with branches, are evident in the anterior part of the body (fig. A).

The paired testes vary considerably in size, shape and exact relative position. In young specimens the margins of the testes are entire, whereas in older specimens the testes become distinctly lobed. Gradations between these two extremes are frequently seen (Plate V, figs. 5-8). The testes are usually oval and orientated lengthwise in the body; they are of approximately equal size, 0·14 × 0·11 mm. - 0·42 × 0·56 mm., and lie on either side of the acetabulum at the level of its posterior margin. They are always separated by numerous uterine loops. The cirrus pouch, which lies slightly to one side of the mid-line of the body, is 0·42 mm. long. In one specimen the cirrus was extruded and a terminal knob-like swelling was evident (fig. A). The genital aperture is ventral, about midway along the oesophagus (fig. A).

The ovary is spherical or ovoid, has an entire margin, but may be slightly lobed in appearance; it is lateral, usually on the right side of the body, immediately behind the testes. When spherical, it is 0·14 mm. in diameter; when ovoid, 0·06 × 0·07 mm.-0·42 × 0·28 mm. The receptaculum seminis and Mehlis' gland lie immediately posterior to the ovary (fig. A). The lateral vitelline fields occupy about one-quarter to one-third of the body length, usually from about the anterior level of the testes, although in one or two specimens they appear from about the middle of the acetabulum. They are 0·75-3·0 mm. long and may be of equal or unequal lengths; the field on the right side of the body is always the shorter. The vitelline follicles are comparatively large and regularly arranged in linear groups. The transverse vitelline ducts, which are midway along the vitelline fields, are usually very conspicuous. The uterus, which is always densely packed with innumerable eggs, is usually tightly coiled, the loops forming varying patterns in individual worms. This pattern-formation appears to depend on the age of the worm.



The uterine coils fill almost all the body behind the level of the ovary (fig. A ; Plate V, figs. 1-4).

After passing backwards and then forwards in this region, the uterus forms several loops between the testes and then runs dorsally to the acetabulum, to open into the genital atrium immediately in front of the cirrus. The metraterm is not well developed (fig. A). The eggs are dark brown, operculate, 35-42μ × 18-30μ.

This pancreatic fluke occurred in varying numbers in the infested bandicoots : in one host only one fluke was present, in another there were eight, in another there were 20, while in a number of instances several hundreds of worms were found in a single host.*

Hosts, the short-nosed bandicoot, *Thylacis obesulus* (Shaw and Nodder, 1797), and the long-nosed bandicoot, *Perameles nasuta* (Geoffroy, 1804).

Location in host, pancreatic ducts.

Geographical distribution, Brisbane, Mount Glorious and Gympie, Queensland.

The type and paratype specimens are lodged in the Queensland Museum, and further paratype specimens in the British Museum (Natural History), London, and in the Department of Parasitology, London School of Hygiene and Tropical Medicine.

In an examination of 37 specimens of the short-nosed bandicoot, *Thylacis obesulus* formerly known as *Isoodon obesulus*), for helminthic infestations, 14 were found to be harbouring a pancreatic fluke. The incidence of infestation in this host species was therefore approximately 38 per cent. The bandicoots were caught in the suburbs of Brisbane (Chelmer, Indooroopilly and Paddington) and at Gympie, which is about 100 miles north of Brisbane. There has been no opportunity of examining bandicoots from other states in Australia. Two specimens of the long-nosed bandicoot, *Perameles nasuta*, were also examined, one from Innisfail, north Queensland, and one from Mount Glorious, near Brisbane. The specimen from Mount Glorious was infested with pancreatic flukes.

The flukes were fixed either in Bouin's fixative or in 10 per cent. formalin, and were preserved in 70 per cent. alcohol. They were stained as whole mounts with acetic-alum-carmine or with Delafield's haematoxylin. Sections were stained with Ehrlich's haematoxylin and counter-stained with eosin. The range of variation shown in the total length and in the maximum width of the body is taken from 83 specimens, including the stained mounts, while the other measurements given are from a series of 25 mounted specimens.

See reprint for morphological variations.

Platynosomum brauni (Freitas et Lent, 1937)

Синоним: *Eurytrema brauni* Freitas et Lent, 1937

(Рис. 178)

Хозяин: неясыть (*Strix flammea perlata*).

Локализация: желчный пузырь.

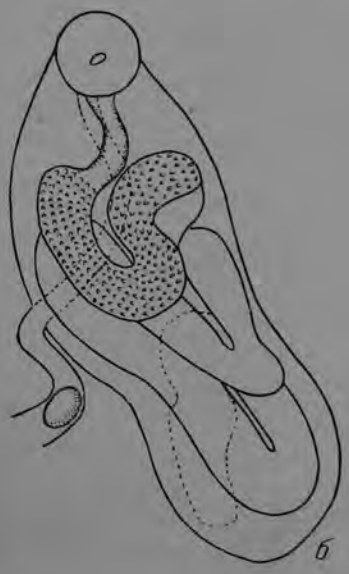
Место обнаружения: Бразилия.

Описание вида (по Фрейтасу и Ленту, 1937). Тело удлиненное, плоское, суживающееся к обоим концам, особенно к переднему; длина тела 4,86—6,71 мм при максимальной ширине 0,95—1,45 мм в области брюшной присоски или желточников. Кутикула гладкая. Ротовая присоска субтерминальная, крупная, округленная, 0,415—0,558 мм в диаметре. Брюшная присоска круглая, приблизительно одинакового размера с ротовой, от которой она отделена расстоянием в 0,53—0,58 мм, достигает 0,400—0,558 мм в диаметре. Фаринкс маленький, длиною 0,12—0,16 мм при ширине 0,120—0, 114 мм. Пищевод цилиндрический. Кишечные стволы длинные, тонкие, оканчивающиеся на некотором расстоянии от заднего конца тела. Половое отверстие лежит более или менее медианно, непосредственно впереди развилка кишечника. Половая бурса несколько удлиненная, 0,376—0,440 мм длины, при ширине 0,112—0,152 мм; она расположена впереди брюшной присоски и содержит скрученный семенной пузырек. Крупные семенники лежат на одном горизонтальном уровне целиком или частично позади брюшной присоски, между кишечными стволами, впереди яичника; они шаровидной или несколько удлиненной формы, лопастные или цельнокрайные, 0,286—0,672 мм длины при ширине 0,286—0,529 мм. Яичник крупный, лопастной или цельнокрайный; он лежит субмедианно позади семенников и впереди матки, достигая 0,329—0,486 мм длины при ширине 0,272—0,486 мм. Семяприемника нет. Тельце Мелиса меньше яичника, более или менее круглое, обычно неявственно очерченное, иногда атрофированное, лежит медианно, непосредственно позади яичника, соприкасаясь с ним, 0,144—0,180 мм длины при ширине 0,17—0,20 мм. Лауреров канал не был обнаружен. Желточники состоят из фолликулов, иногда рудиментарных. Они расположены экстрацекально, цекально, местами интрацекально, в зоне яичника и в передней трети зоны матки и достигают 1,0—1,6 мм длины. Матка мощно развитая, с поперечными петлями в интрацекальных и цекальных участках, иногда заходящими в экстрацекальные участки; она начинается позади зоны брюшной присоски и тянется до заднего конца тела, заходя кзади от кишечных стволов. Яйца желтоватые, с крышечками, их размер 0,040—0,43×0,024—0,032 мм. Экскреторный пузырь Y-образный.

Фрейтас и Лент наблюдали некоторые вариации в отношении семенников, яичника, тельца Мелиса и желточников. Например семенники бывают шаровидные, лопастные или слегка удлиненные и нелопастные, резко очерченные или диффузные, с неясными очертаниями. Тельце Мелиса может быть округлым, отчетливо очерченным или тоже диффузным или даже атрофированным и незаметным. Яичник тоже бывает либо шаровидным и лопастным, или удлиненным и нелопастным, или, наконец, диффузным и неясно очерченным. Желточники могут состоять из хорошо развитых многочисленных фолликулов или из менее многочисленных и слабо дифференцированных фолликулов, или могут быть рудиментарными, имея вид мельчайших грануляций.

Пищевод тоже бывает либо коротким, либо более длинным.

а



б

Familia DICROCOELIIDAE Odhner, 1911
Subfamilia Dicrocoeliinae Looss, 1899
Género *Platynosomum* Looss, 1907

Platynosomum costaricense ~~n. sp.~~ BRENES, Arroyo, et Muñoz, 1966

La descripción de este tremátodo se realizó en dos ejemplares fijados en líquido de Bouin, teñidos con carmín de Grenacher y montados en preparación total.

Tremátodos de cuerpo lanceolado, cutícula lisa, aplastado en sentido dorsoventral, que miden 8,856 a 9,396 mm de largo por 3,294 a 3,645 mm de ancho. La ventosa oral es grande, muy musculosa, terminal, mide de diámetro anteroposterior de 0,540 a 0,702 mm por 0,567 a 0,693 mm de diámetro transversal.

El acetábulo es esférico más grande que la ventosa oral y también muy musculoso, mide de 0,891 a 0,918 mm de largo por 0,891 a 0,918 mm de ancho. Dista de la extremidad anterior de 1,620 a 1,944 mm, siendo la distancia entre el centro de la ventosa oral y el acetábulo de 1,809 a 2,160 mm.

La relación entre las dos ventosas es de 1:1,45 — 1:1,43. La faringe es subesférica y mide 0,188 a 0,216 mm de largo por 0,180 a 0,185 mm de ancho. A continuación de la faringe se encuentra un esófago relativamente largo que mide 0,259 a 0,270 mm de largo por 0,026 a 0,029 mm de ancho.

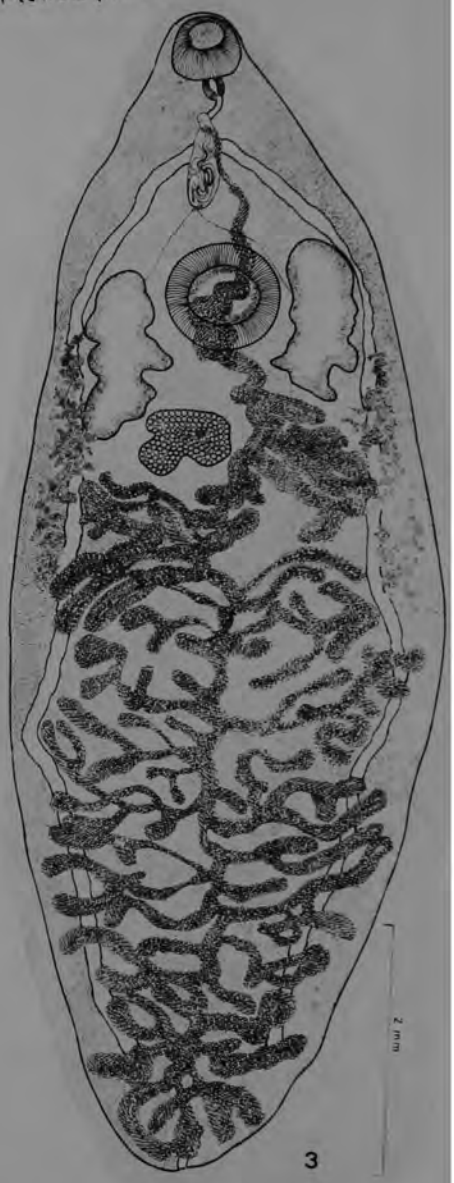
Los ciegos intestinales son anchos, ligeramente sinuosos y se extienden simétricamente a ambos lados hasta casi la extremidad posterior, a una distancia de 4,320 a 4,725 mm. Los testículos son grandes, lobulados, situados en la misma zona, a la par del acetábulo a un nivel ligeramente posterior a su ecuador. El testículo derecho mide de 0,935 a 1,431 mm de largo por 0,702 a 0,935 mm de ancho y el izquierdo de 1,053 a 1,377 mm de largo por 0,675 a 0,837 mm de ancho.

El ovario es ligeramente lobulado, casi inmediatamente debajo del testículo derecho y en posición oblicua con respecto a éste; mide de 0,567 a 0,594 mm de largo por 0,594 a 0,756 mm de ancho. La espermateca se encuentra inmediatamente en contacto con el ovario en su borde posterior izquierdo, mide 0,207 mm de largo por 0,306 mm de ancho.

La bolsa del cirro es relativamente grande, oblonga y en posición oblicua con respecto al eje longitudinal del cuerpo y se extiende desde un nivel prebifurcal, hasta casi tocar el borde anterior del acetábulo, en su interior se observa la vesícula seminal, ducto eyaculador y mide 0,630 a 0,783 mm de largo por 0,234 mm de ancho.

El poro genital está situado en posición prebifurcal, dista de la extremidad anterior de 0,918 a 0,999 mm. Las glándulas vitelinas están formadas por folículos grandes lobulados, que se extienden desde un nivel ligeramente anterior al borde posterior de los testículos (en su mayoría cecales y extracecales) midiendo la derecha de 2,160 a 2,187 mm de largo y la izquierda de 1,728 a 2,106 mm a una distancia de la extremidad posterior de 4,428 a 4,725 mm para la vitelina derecha por 4,320 a 4,725 mm para la izquierda.

El útero está constituido por dos ramas, escendente y descendente, ocupa casi los dos tercios posteriores del cuerpo del parásito, finalmente forma unas asas que separan al testículo izquierdo del ovario y luego la misma asa se dirige anteriormente, cubre parcialmente al acetábulo, separa ambos testículos y termina en un metratermo que finaliza en el poro genital. Los huevecillos son apercu-



3

lados y miden de 0,037 a 0,042 mm de largo por 0,023 a 0,025 mm de ancho.

HUÉSPED: *Buteo nitidus micrus*, "gavilán".
LOCALIZACIÓN: Vesícula biliar.
DISTRIBUCIÓN GEOGRÁFICA: Tilarán, Guanacaste.
EJEMPLARES: Holotipo y paratipo en la colección helmintológica del Departamento de Parasitología, Facultad de Microbiología, Universidad de Costa Rica, bajo el número 200-42.

DISCUSIÓN: Al revisar los trabajos de TRAVASSOS (8) y SKRJABIN (5) encontramos que las especies válidas de este género son las siguientes: *Platynosomum semifuscum, P. brauni, P. deflectens, P. fallax, P. fastosum, P. illiciens, P. muris, P. proxiliciens, P. reficiens, P. voluptarium, P. ventricosum.* De ahí el interés de describir esta nueva especie: *Platynosomum costaricense.* Con la que más se asemeja es *Platynosomum illiciens,* (también encontrada en Costa Rica, en Tilarán, Guanacaste, por BRENES y ARROYO (1), de la que se diferencia por las siguientes características: (1) diferente tamaño (más grande y más ancho); (2) mayor tamaño del acetábulo; (3) menor distancia del poro genital a la extremidad anterior; (4) mayor tamaño de los testículos y diferente posición; (5) mayor extensión de las glándulas vitelinas.

RESUMEN

Se describen tres especies nuevas de tremátodos digéneos de Costa Rica: *Stomylotrema ucremium* (Stomylotrematidae), parásito del intestino grueso del "cacique veranero", *Icterus galbula; Lubens centroamericanum* (Dicrocoeliidae) parásito de la vesícula biliar de la "urraca", *Calocitta formosa;* y Platynosomum costarricense (Dicrocoeliidae) parásito de la vesícula biliar del "gavilán" *Buteo nitidus micrus.* Los géneros *Stomylotrema* y *Lubens* se señalan por primera vez en Centro América. Se presenta una clave para las especies de *Stomylotrema* y se revisan las especies válidas para los tres géneros mencionados.

SUMMARY

Three new species of digenetic trematodes from Costa Rica are described: *Stomylotrema ucremium* (Stomylotrematidae), from the large intestine of the Baltimore oriole, *Icterus galbula; Lubens centroamericanum* (Dicrocoeliidae) from the gall bladder of the magpie-jay, *Calocitta formosa;* and *Platynosomum costaricense* (Dicrocoeliidae) from the gall bladder of the gray Mexican hawk *Buteo nitidus micrus.* The genera *Stomylotrema* and *Lubens* are recorded from Central America for the first time. A key is given for the species of *Stomylotrema.*

Platynosomum deflectens (Rudolphi, 1819) Travassos, 1918

Синонимы: *Distomum deflectens* Rudolphi, 1819; *Dicrocoelium deflectens* (Rud., 1819) Braun, 1901

(Рис. 179)

Хозяин: *Thryothorus hypoxanthus*.

Локализация: печень.

Место обнаружения: Бразилия.

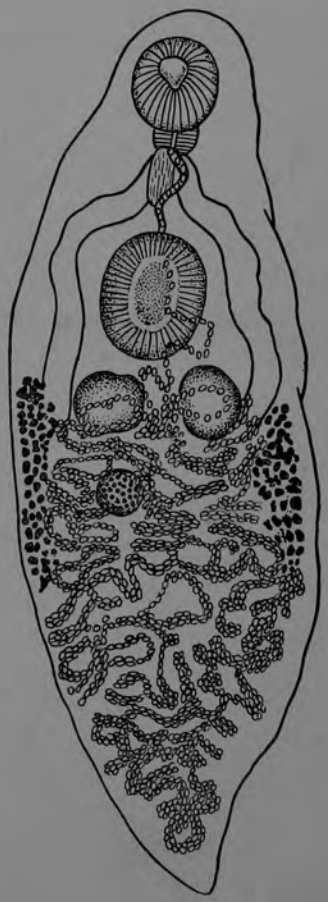
Описание вида (по Брауну, 1902). Тело сплющено, широко ланцетовидное, 3 мм в длину и 1 мм в ширину, передний конец закруглен, задний заострен. Ротовая присоска лежит вентрально, 0,240—0,312 мм длины и 0,281—0,364 мм ширины. Брюшная присоска отдалена от переднего конца тела приблизительно на одну треть длины тела и достигает 0,364—0,416 мм длины при ширине 0,333—0,375 мм.

Префаринкс отсутствует; фаринкс почти шарообразный, 0,114 мм в диаметре; пищевод короткий, кишечные стволы мощные, их слепые концы, повидимому, только немного переходят за середину тела.

Половое отверстие лежит на высоте фаринкса по медианной линии; половая бурса короткая и узкая. Оба шаровидных (0,208 мм) семенника лежат симметрично друг около друга и вплотную позади брюшной присоски; позади одного из них находится меньший яичник. Желточники, расположенные по бокам тела, начинаются на высоте семенников и только немногим переходят за уровень яичника. Матка образует поперечные петли в задней половине тела; по бокам петли достигают до желточников, позади последних — до латеральных краев тела.

Яйца темного цвета, многочисленные, 0,023—0,027 мм длины и 0,014—0,016 мм ширины.

Литература: Rudolphi, 1919, стр. 677; Braun, 1901, стр. 702; Braun, 1902; Travassos, 1918; Travassos, 1944, стр. 98—99.



Dicrocoeliidae

Platynosomum deflectens (Rud.)
Syn. Dicrocoelium deflectens (Rud.)

Length: 3 mm. Flat and lancet-shaped, hind end pointed.

Width: 1 mm.

Oral sucker: 0.281 to 0.364

Acetabulum: (size:) 0.333 to 0.416 x 0.375
(position): 1/3 from anterior end.

Sucker ratio:

Esophagus: Short; ceca wide, extending only little past mid-body.
Pharynx: Spherical, 0.104

Genital pore (location): Opposite pharynx

Testes, shape: Spherical

location: Symmetrical, near together, close behind acetabulum.
Cirrus sac (extent): Short, cylindrical.
Ovary, shape: Spherical.

location:

Vitellaria: From level of testes to little past the ovary.

Eggs: 22 to 27 by 14 to 16 µ.

Other features:

Host: Thryothorus hypoxanthus

Locality: Brazil

Reference: Braun, Zool. Jharb., 16:101

Comparisons:

Life cycle:

f3568p1b

Platynosomum delectans (Braun, 1901)
Syn. *Dicrocoelium delectans* Braun, 1901

Length: 2.8 mm. Narrowing toward each end from level of ovary.

Width: 1 mm.

Oral sucker: 0.240 wide by 0.198 long

Acetabulum: (size:) 0.350
(position): Centers of suckers 0.5 from one another.

Sucker ratio:

Esophagus: Ceca extend a little past vitellaria
Pharynx: 0.093

Genital pore (location): At hind edge of pharynx.

Testes, shape: Oval

location: Symmetrical, close together.
Cirrus sac (extent): Overlapping ventral sucker.
Ovary, shape: Diagonally oval.

location:

Vitellaria: From level of testes extending back 1.4 mm.

Eggs: 22 to 27 by 14 to 18 μ.

Other features:

Host: *Myiothera ruficeps* Stix. Location: intestine

Locality: Brazil

Reference: Braun, Zool. Jharb, 16:102

Comparisons: Same relation to *P. voluptarium* as *P. lubens* has to *P. illiciens*

Life cycle:

Platynosomum fallax Heidegger et Mendheim, 1938
(Рис. 180)

Хозяин: какаду (*Cacatua sulfurea*).

Локализация: печень и желчный пузырь.

Место обнаружения: Азия (Малайский архипелаг).

Описание вида (по Гейдеггеру и Мендхейму, 1938). Тело 4,5—7,4 мм длины и 2,0—2,8 мм максимальной ширины в области семенников, на границе передней и средней трети длины тела. Передний и задний концы суживаются, причем в передней части сужение выступает более резко. Ротовая присоска располагается субтерминально, 0,45 — 0,52 мм длины и 0,58—0,64 мм ширины. Имеется короткий префаринкс; фаринкс

180

Dicrocoeliidae

Platynosomum fastosum Kossack, 1910

Syn. P. plancipitis Cameron, 1928 see Sandground

Length: 4.59 to 5.82 , body flat and weak

Width: 1.83 to 2.04

Oral sucker: 0.3766

Acetabulum: (size:) 0.3781
(position): 1.35 from anterior end

Sucker ratio:

Esophagus: 0.1642 to 0.2154
Pharynx: 0.1187 in diameter

Genital pore (location): ventral to bifurcation

Testes, shape: lobed

location: symmetrical

Cirrus sac (extent): very small and cylindrical, 0.3443 by 0.1292

Ovary, shape: lobed

location:

Vitellaria: middle fifth of body

Eggs: 36 to 40 by 24 to 27 μ

Other features:

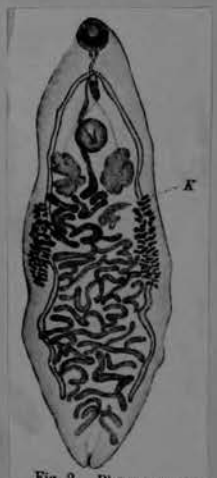


Fig. 2. Platynosomum fastosum n. sp. auf dem Rücken. K = Keimstock. Vergr. 15.

Host: Felis minuta Temm. zoo

Locality:

Reference: Centralb. Bakt., 56:116-117

Comparisons:

Life cycle:

f3568plb

-OVER-

Platynosomum fastosum Kossack, 1910

HOST: *Felis catus domesticus* (Felidae).

HABITATS: Liver and small intestine.

LOCALITIES: Jesselton, Tuaran, Kepayan, North Borneo.

DATES: 31 August, 16, 29 September 196[illegible]

SPECIMENS: U.S.N.M. Helm Coll. No. 60971 (five slides with one specimen each).

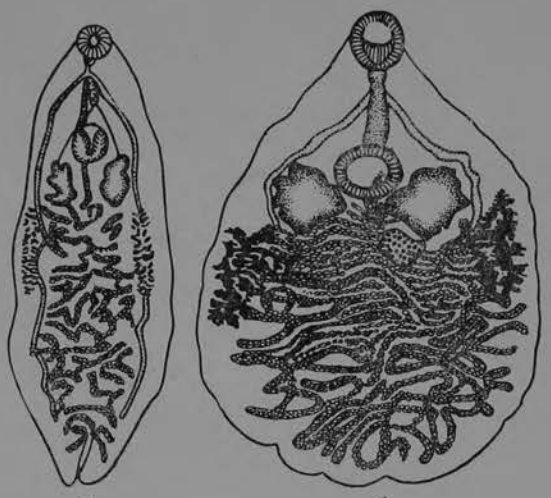
MEASUREMENTS and some pertinent data (based on 20 specimens, nine measured): Body, length 4,031 to 6,201, forebody width at genital pore level 630 to 897, hind body maximum width 1,028 to 1,970, widest at testicular level in five and at vitellaria in four; forebody 798 to 1,335, hind body 2,876 to 4,563; preoral body 6 to 40, postovarian space 2,364 to 3,528, postvitellarian space 1,572 to 2,677, postcecal space 395 to 752, oral sucker 335 to 445 by 300 to 450; acetabulum 357 to 480 by 340 to 475, entirely muscular in 11 specimens, partly parenchymatous to varying extents in five; sucker length ratio 1 : 1.05 to 1.18; pharynx 116 to 140 by 116 to 150; esophagus 75 to 305 in longitudinal extent, bifurcating 260 to 480 preacetabular; right testis 455 to 690 by 315 to 480; left testis 460 to 675 by 310 to 525; cirrus sac 300 to 415 by 116 to 159, overlapping acetabulum 9 in one and 63 to 185 preacetabular in eight, entirely preacetabular in eight other specimens, containing a muscoiled, tubular, thick-walled, cellular seminal vesicle, a short pars prostatica, a long, sometimes sinuous, thick-walled, muscular, protrusible cirrus, and prostate cells surrounding the latter and pars prostatica; genital pore prebifurcal, median, 295 to 587 preacetabular, 5 to 167 postpharyngeal, 135 to 280 posterior to oral sucker; ovary 247 to 450 by 220 to 380, submedian to right in eight, to left in eight; seminal receptacle 101 to 157 by 101 to 157, from longer than wide to round to wider than long, dorsal to posteromedian part of ovary; vitelline fields 813 to 1,630 long; metraterm thick walled, muscular, straight, about same length as or slightly shorter than cirrus sac; [illegible] operculate eggs measuring 29 to 44 by 19 to 27.

DISCUSSION: Four and 12 worms, respectively, were taken from the liver of two domestic cats and four from the small intestine of a third. Rohde (1962) reported this species from the same habitats and host species from Malaya (Malaysia). Additional hosts reported by various authors are *Oncoides minuta*, *Grison vittata*, and *Herpailurus y. yaguarondi*; additional localities are Hawaii, Brazil, Cuba, Puerto Rico, Bahamas, North America, and Africa.

FROM FISCHTHAL AND KUNTZ, 1965

Platynosomum fastosum Kossack, 1910

Host : Felis minuta



181

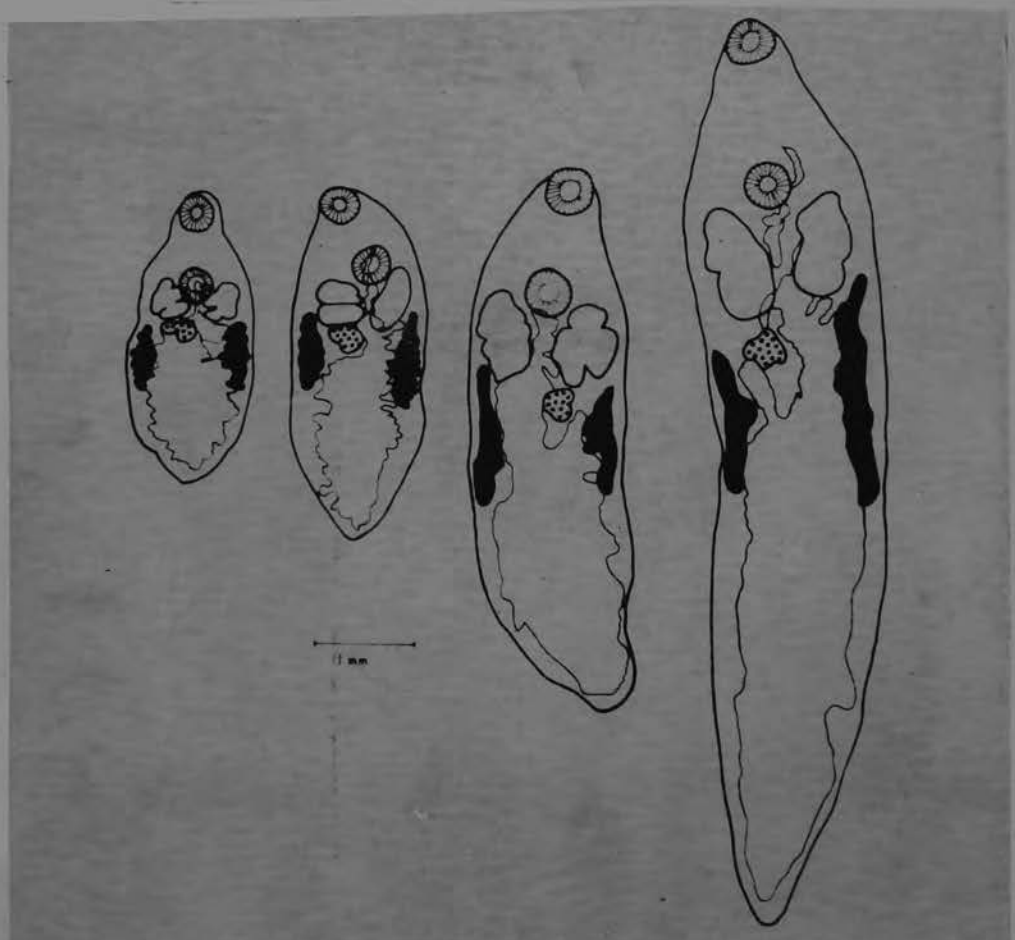


Fig. 10. *Platynosomum fastosum* from Malayan cats. Specimens of different body size. Note: Relatively longer hindbody in larger specimens; suckers and pharynx relatively much larger in small specimens.

FROM ROHDE (1966)

Platynosomum illiciens (Braun, 1901)
Syn. Dicrocoelium illiciens Braun, 1901

Length: 6 mm.

Width: 2 mm.

Oral sucker: 0.510

Acetabulum: (size:) 0.700
(position): 1.5 mm posterior to oral sucker

Sucker ratio:

Esophagus: Small. Ceca outside testes, inside vitellaria, reach almost to hind end.
Pharynx: 0.162

Genital pore (location): At bifurcation .

Testes, shape: Large, elongate and lobed.

location: Near ventral sucker.
Cirrus sac (extent): 0.47 long by 0.260 wide.
Ovary, shape: Bowed.

location:

Vitellaria: From posterior level of testes , extending only about 1 mm.

Eggs: 36 by 22 µ.

Other features: Metraterm thick-walled.

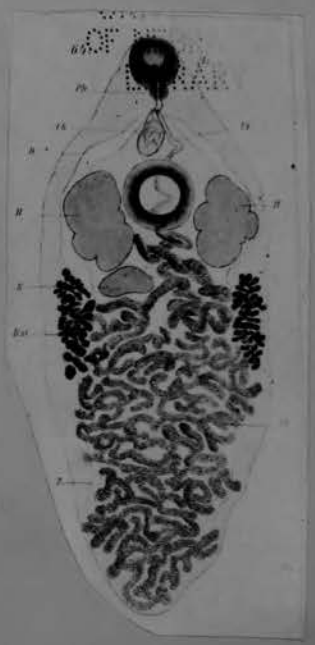
Host: Rhamphastus sp.; Pipra rupricola

Locality: Brazil.

Reference: Braun, Zool. Jharb., 16:105

Comparisons:

Life cycle:



f3568p1b

5. *Platynosomum illiciens* (BRAUN, 1901)

Wirt/Herkunft. *Glaucidium siju* (D'ORBIGNY), Kubanischer Sperlingskauz (Strigiformes, Strigidae) / Importiert aus Kuba am 11. 10. 1963, Sektion am 4. 11. 1963.

Lokalisation. Gallenblase.

Präparat-Nr. kT 18/75 (1 Exemplar).

Beschreibung (vgl. Abb. 6).

Cuticula vereinzelt mit Papillen besetzt; Körper lanzettförmig, 3,8 mm lang, maximale Breite 1,5 mm, hinter der Körpermitte; Saugnäpfe fast in der gleichen Größenordnung; Mundsaugnapf 0,367 mm lang und 0,375 mm breit; Bauchsaugnapf 0,433 mm lang und 0,448 mm breit; Pharynx 0,117 mm lang und 0,103 mm breit; Oesophagus 0,110 mm lang; Darmgabelung vor der Mitte zwischen Pharynx und Bauchsaugnapf-Vorderrand; Darmschenkel lang, fast bis ins Körperhinterende reichend; Testes kleiner als Ovarium, länglich, schwach gebuchtet, 0,279—0,345 mm lang und 0,220—0,235 mm breit, seitlich neben dem hinteren Bereich des Bauchsaugnapfs parallel zueinander gelegen; Ovarium schräg hinter dem rechten Testis, distal gekerbt, 0,352 mm lang und 0,301 mm breit; Genitalporus submedian unmittelbar vor der Darmgabelung; Cirrusbeutel 0,328 mm lang, postbifurcal, seine Basis direkt vor dem Bauchsaugnapf-Vorderrand liegend; Dotterstöcke auf der Höhe der Ovarium-Mitte beginnend, 0,712—0,771 mm lang, etwa das mittlere Körperfünftel einnehmend, überwiegend extracaecal gelegen, aus kleinen breitgestreckten Follikeln bestehend; Uterusschlingen den gesamten intercaecalen Körperbereich hinter den Gonaden ausfüllend; Dotterreservoir hinter dem Ovarium; Eigröße 0,033—0,039 × 0,021—0,026 mm. Protonephridienformel

$$2\,[(2 + 2 + 2) + (2 + 2 + 2)] = 24.$$

Abb. 6. *Platynosomum illiciens* aus *Glaucidium siju* (Orig. ZIEGER).

Bemerkungen.

Leider liegt nur ein Exemplar vor, wodurch die Artbestimmung schwierig ist. In Frage kommen die südamerikanischen Arten *P. illiciens* (auch in Nordamerika vorkommend), *P. voluptarium* (BRAUN, 1901) und *P. brauni* (FREITAS et LENT, 1937). Eine völlige Übereinstimmung ergibt sich mit keiner dieser 3 Arten. *P. brauni* wurde auch aus Eulen beschrieben, hat jedoch größere Eier und soll nach TRAVASSOS mit *P. illiciens* (ursprünglich aus südamerikanischen Passeriformes und Piciformes, später aus *Buteo* in Nordamerika beschrieben) identisch sein. *P. illiciens* hat etwas größere Körper- und Organmaße, scheint mir aber am ehesten in den Organproportionen mit der mir vorliegenden Art übereinzustimmen. *P. voluptarium* wurde aus *Falco* sp. beschrieben; diese Art wird von YAMAGUTI (1958) ebenso wie *P. brauni* als Synonym von *P. illiciens* aufgefaßt. Zum Genus *Platynosomum* rechne ich:

P. semifuscum LOOSS, 1907 (Generotypus)
P. australiense (SANDARS, 1958)
P. brauni (FREITAS et LENT, 1937)
P. burleighi (SCHELL, 1957)
P. fallax HEIDEGGER et MENDHEIM, 1938
P. fastosum KOSSACK, 1910
P. goliath TRAVASSOS, 1945
P. illiciens (BRAUN, 1901)
?? *P. muris* (ŠČERBAKOVA, 1942)
P. passerculum (SCHELL, 1957)
P. proxilliciens (CANAVAN, 1937)
? *P. reficiens* (BRAUN, 1901)
P. voluptarium (BRAUN, 1901)

From Odening, 1964

Platynosomum illiciens (Braun, 1901)

Синонимы: *Dicrocoelium illiciens* Braun, 1901; *Eurytrema illiciens* (Braun, 1901) Lent et Freitas, 1937

(Рис. 182)

Хозяева: птицы — *Rhamphastus* sp., *Pipra rupricola.*

Локализация: печень

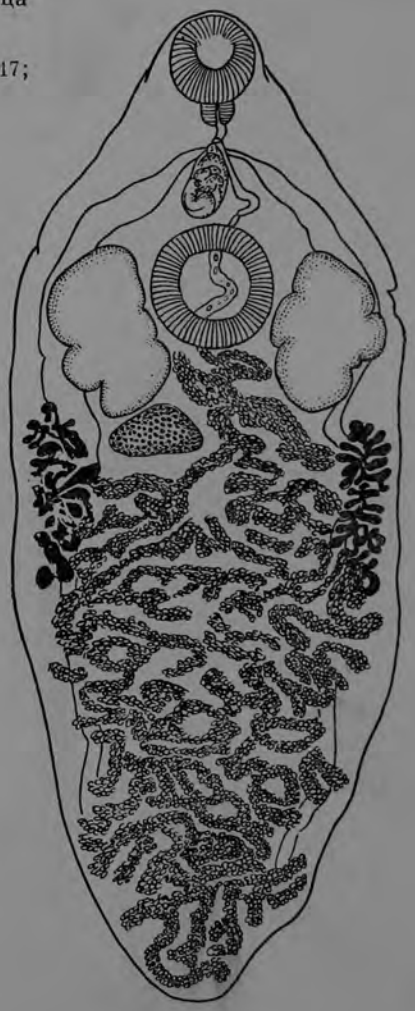
Место обнаружения: Бразилия.

Описание вида (по Брауну, 1902). Тело сплющено, имеет короткую коническую шейную часть, задний конец широкий, постепенно суживающийся. Общая длина тела 6 мм при ширине 2 мм на уровне семенников. Ротовая присоска субтерминальная, круглая, 0,510 мм в диаметре; брюшная присоска лежит на 1,5 мм позади нее, круглая, 0,700 мм в диаметре. Фаринкс шарообразный, 0,162 мм в диаметре; префаринкс отсутствует. Пищевод очень короткий. Кишечные стволы вначале отходят кнаружи от семенников, затем приближаются к медианной линии и лежат между желточниками; их слепые концы не достигают заднего конца тела.

Половое отверстие лежит непосредственно позади фаринкса. Половая бурса 0,47 мм длины и 0,260 мм ширины; семенники большие, вытянутые в длину, лопастные, лежат справа и слева от брюшной присоски, переходя несколько кзади от нее. Позади одного из семенников лежит поперечно вытянутый бобовидный яичник; кнутри и позади яичника находится тельце Мелиса. Желточники небольшие, около 1 мм длины, только немногим длиннее семенников; их передний конец совпадает с задним краем семенников. Матка простирается по всей задней половине тела; петли ее направлены поперек; на уровне желточников они не пересекают последних, но покрывают кишечные стволы; позади желточников они распространяются в латеральные стороны и доходят в задней части тела до боковых краев. Имеется метратерм с утолщенными стенками.

Очень многочисленные, с толстой оболочкой темнокоричневые яйца достигают 0,0364 мм длины и 0,0228 мм ширины.

Литература: Braun, 1901, стр. 944; Braun, 1902; Kossack, 1910, стр. 117; Lent e Freitas, 1937; Travassos, 1944, стр. 93—97.



182

Platynosomum illiciens (Braun, 1901) Kossack, 1910

Para la presente descripción contamos con cinco ejemplares en preparaciones completas, unos teñidos con carmín de Grenacher y otros aclarados en lactofenol.

Tremátodos lanceolados, con la extremidad anterior redondeada y la posterior ligeramente aguzada, aplastados dorsoventralmente, transparentes; cutícula lisa. Miden 4,732 a 6,240 mm de largo por 1,846 a 3,328 mm de ancho; con una mayor anchura a la altura de los testículos.

Ventosa oral terminal, fuerte y musculosa, que mide 0,400 a 0,520 mm de largo por 0,440 a 0,520 mm de ancho. Faringe ovoide, inmediatamente debajo de la ventosa oral, de 0,129 mm de largo por 0,144 a 0,166 mm de ancho. Esófago corto y delgado; mide 0,118 a 0,267 mm de largo por 0,033 a 0,40 mm de ancho. Ciegos largos y sinuosos que parten de la bifurcación esofágica, bordean los testículos, pasan por dentro de las vitelinas y van a terminar cerca de la extremidad posterior; el ciego derecho a una distancia de 0,445 a 0,884 mm de la misma extremidad y el izquierdo de 0,525 a 0,818 mm. El acetábulo es grande, redondo, localizado en el tercio anterior del cuerpo del parásito entre los testículos, mide 0,624 a 0,747 mm de diámetro anteroposterior por 0,624 a 0,728 mm de ancho. La distancia del centro del acetábulo al centro de la ventosa oral es de 1,222 a 1,300 mm y a la extremidad anterior de 1,028 a 1,326 mm. La relación entre la ventosa oral y el acetábulo es de 1 : 1,5 x 1 : 1,4.

Poro genital bifurcal situado de 0,596 a 0,712 mm de la extremidad anterior. La bolsa del cirro es sacciforme, situada en el tercio anterior del parásito entre el acetábulo y la bifurcación de los ciegos, mide 0,364 a 0,436 mm de largo por 0,033 a 0,040 mm de ancho. Los testículos están localizados en el tercio anterior y en la misma zona, grandes, masiformes y lobulados; miden, el derecho 0,494 a 0,936 mm de diámetro antero-posterior por 0,356 a 0,624 mm de diámetro transversal, y el izquierdo 0,446 a 1,040 mm de diámetro antero-posterior por 0,356 mm de diámetro transversal.

El ovario es lobulado, situado debajo y hacia la línea media del testículo izquierdo, mide 0,267 a 0,382 mm de diámetro antero-posterior por 0,391 a 0,498 mm de diámetro transversal. Espermateca pequeña, ligeramente lobulada, junto al ovario mide 0,081 a 0,111 mm de largo por 0,044 a 0,111 mm de ancho. Las vitelinas están constituídas por masas de folículos lobulados situados a ambos lados de la zona ecuatorial; la del lado derecho mide 0,910 a 1,094 mm de extensión y la izquierda 0,832 a 0,979 mm. La distancia de las vitelinas a la extremidad posterior varía entre 1,937 a 3,120 mm. El útero presenta numerosas asas que se extienden desde la extremidad posterior, intracecal y extracecalmente, pasa entre el ovario y los testículos y termina en un largo metratermo por debajo del acetábulo que finaliza en el poro genital. Los huevecillos miden 0,037 a 0,044 mm de largo por 0,022 a 0,025 mm de ancho.

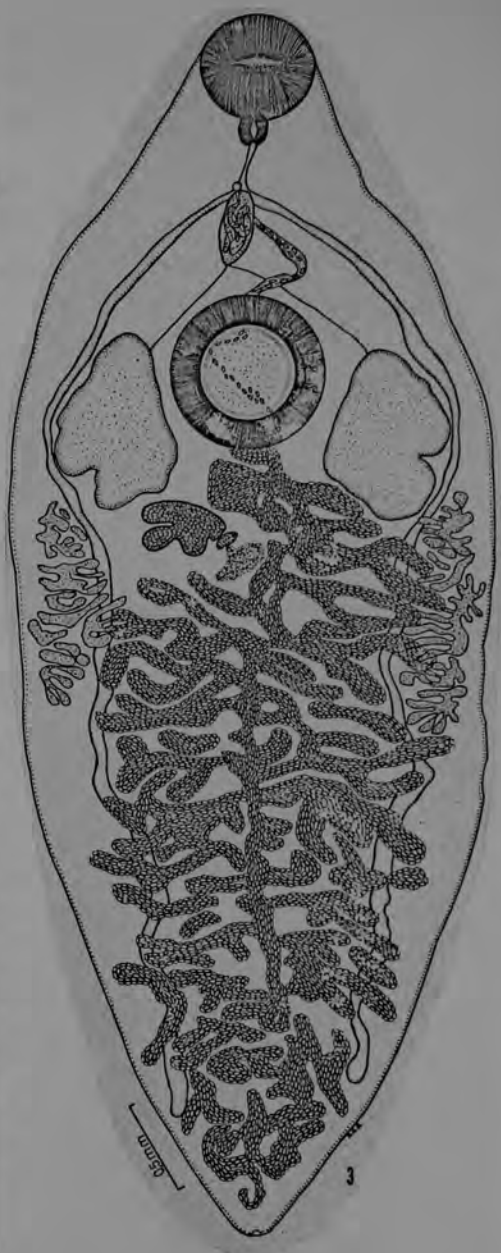
HUÉSPED: *Leucopternis semiplumbea* Lawrence ("gavilán")

LOCALIZACIÓN: Vesícula biliar

DISTRIBUCIÓN GEOGRÁFICA: Puerto Viejo, Sarapiquí, Provincia de Heredia.

EJEMPLARES: En la colección helmintológica del Departamento de Parasitología, Facultad de Microbiología, Universidad de Costa Rica, con el número 200-31.

DISCUSIÓN: Nuestros ejemplares han sido clasificados con base en los trabajos de TRAVASSOS (7) y SKRJABIN (5), como *Platynosomum illiciens* (Braun, 1901) Kossack, 1910.



From BRENES AND ARROYO, 1962

Platynosomum lubens (Braun, 1901)
Syn. Dicrocoelium lubens Braun, 1901

Length: Same as P. illiciens.

Width: " " " "

Oral sucker: 0.364

Acetabulum: (size:) 0.47
(position): Suckers very close together.

Sucker ratio:

Esophagus:
Pharynx: 0.104

Genital pore (location): Opposite pharynx.

Testes, shape: Round, not lobed.

location: Posterior to ventral sucker
Cirrus sac (extent):
Ovary, shape: Large, very slightly lobed.

location:

Vitellaria: From level of acetabulum to beyond mid-body. Length over 2 mm.

Eggs: 32 by 22 μ.

Other features:

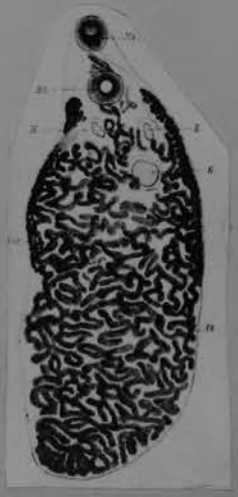
Host: Pipra rupricola.

Locality: Brazil

Reference: Braun, Zool. Jharb., 16:104

Comparisons:

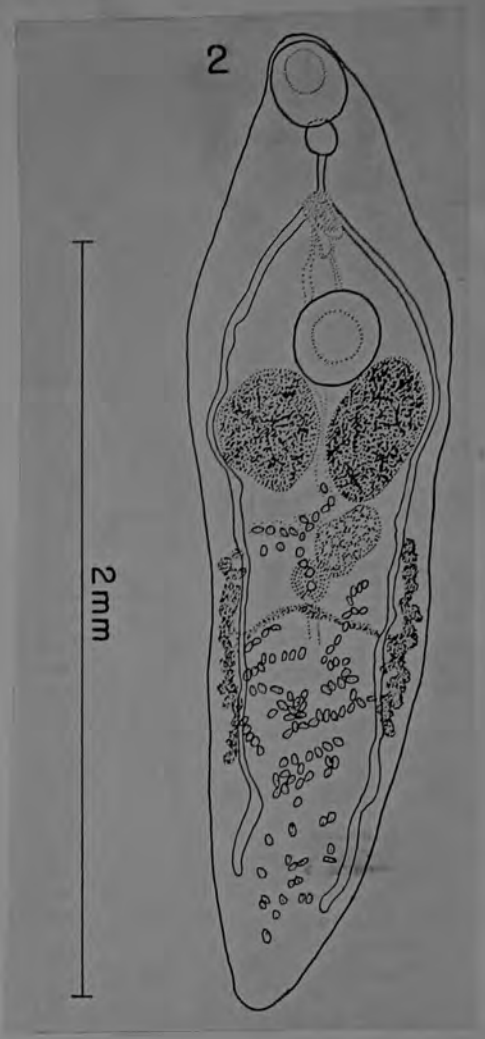
Life cycle:



KINGSTON AND COSGROVE, 1967

Platynosomum marmoseti ~~sp. nov.~~

DESCRIPTION (Fig. 2). Body of mature specimens elongate 2.72 ([2.58] 2.15–2.88), subcylindrical, tapering gradually towards anterior and posterior ends, rounded terminally, widest 0.74 ([0.73] 0.52–0.86) at level of testes. Ratio of body width/length 1:3.6. Cuticle lacking papillae, scales, or spines. Oral sucker 0.210 by 0.192 ([0.250] 0.210–0.270) subterminal, elongate-oval, mouth opening ventrally, subequal to acetabulum. Acetabulum elongate round to oval 0.222 by 0.228 ([0.288] 0.222–0.315) distance between sucker 0.740 ([0.744] 0.691–0.795). Oral sucker: acetabulum ratio 1:1.11 ([1:1.15] 1:1.05–1:1.3). Prepharynx absent. Pharynx globular 0.072 ([0.093] 0.072–0.110). Oesophagus narrow, thin-walled, bifurcates between oral and ventral suckers. Intestinal caeca pass laterally around ventral sucker and terminate 0.240 ([0.270] 0.120–0.380) from posterior extremity. Male genital pore median or slight submedian opening at level of esophageal bifurcation, 0.378 ([0.410] 0.280–0.450) from anterior end of worm. Cirrus pouch elongate, 0.360 by 0.072 ([0.31 by 0.089] 0.27 by 0.11–0.36 by 0.075) containing an unarmed eversible cirrus and a coiled seminal vesicle, located wholly anterior to ventral sucker. Testes symmetrical, large, with smooth margins, elongate–oval, 0.300 in length ([0.393] 0.300–0.510) by 0.240 ([0.250] 0.195–0.270) in width, located immediately posterior to ventral sucker, rarely, anterior margin of one testis intrudes into acetabular zone. Ovary small with smooth margins, or slightly indented 0.168 by 0.120 ([0.163] 0.135–0.194), submedian, posterior to testes' field. Seminal receptacle, median, globular, posterior and dorsal to ovary. Mehlis' gland posterior to ovary. Laurer's canal not seen. Vitelline follicles, largely extracaecal, composed of moderate number of large size follicles, commence at anterior margin of ovarian zone, extend 0.48–0.55 ([0.540] 0.420–0.750) into, and almost exclusively confined to hindbody. Common vitelloducts arise at midlevel of vitelline field and extend to midline of body and terminate in a vitelline reservoir. Descending limb of uterus mostly intercaecal, contains light undeveloped eggs, goes dorsally and posteriorly from ovarian zone in wide loops; a little anterior to posterior termination of body, uterus turns and ascends, passes dorsally to ventral sucker to open to exterior through female genital pore at level of and next to opening of male genital pore. Excretory pore posterior, terminal. Ova from terminal uterus, dark-brown, thick-shelled, operculate, contain fully developed miracidia, each with two large posterior oval granular vesicles; 0.036 by 0.022 ([0.034 by 0.022] 0.031 by 0.021–0.039 by 0.025).



HOST: *Saguinus nigricollis* (Spix, 1823).

HABITAT: Biliary ducts.

LOCALITY: South America, Amazon headwaters.

TYPE SPECIMEN: Holotype and six paratypes in USNM Helm. Collection, Nos. 61763 and 61764, respectively. The name of this species derives from "marmoset," common name of this group of monkeys.

-OVER-

Discussion

Nineteen genera of Dicrocoeliidae are wholly or in part found in mammals (Yamaguti, 1958). Species from seven of these genera are found in primates; five genera, *Brodenia* Gedoelst, 1913; *Concinnum* Bhalerao, 1936, *Dicrocoelium* Dujardin, 1845, *Eurytrema* Looss, 1907, and *Leipertrema* Sandosham, 1951, are found in primates in Africa, Japan, and Borneo; two genera, *Athesmia* Looss, 1899 and *Controrchis* Price, 1929, are found in New World primates.

The new species of dicrocoeliids described above, *Platynosomum amazonensis* sp. nov. and *P. marmoseti* sp. nov. recovered from *Callimico* and *Saguinus*, are not placed in *Brodenia* since they have longer intestinal caeca and lack the serrate margins of the body characteristic of that genus; they are not placed in *Concinnum* or *Leipertrema* since they have longer intestinal caeca and more extensive vitelline fields; they are not placed in *Dicrocoelium* since they do not possess tandem or obliquely placed testes; and they differ from species of *Eurytrema* by different body shape, more extensive vitelline fields, and by having the genital opening bi- or prebifurcal. They clearly do not belong to the New World genera *Athesmia* or *Controrchis*, the former genus being distinguished by unilateral postovarian vitellaria and the latter genus by the testes being separated longitudinally by the acetabulum.

Platynosomum amazonensis sp. nov. and *P. marmoseti* sp. nov. are placed in the genus *Platynosomum* Looss, 1907, owing to shape, acetabular or postacetabular position of symmetrical testes, and origin of the vitellaria in the testicular field or immediately posttesticular.

Seven species have been described as belonging to this genus: six from birds and one from mammals. The species from birds are *P. semifuscum* Looss, 1907 (type), *P. deflectens* (Rudolphi, 1819), *P. illiciens* (Braun, 1901), *P. proxilliciens* (Canavan, 1937), *P. reficiens* (Braun, 1901), and *P. ventricosum* (Rudolphi, 1809); while one species, *P. fastosum* Kossack, 1910, has been described from mammals (Yamaguti, 1958). Travassos (1944) included *P. alectoris* Noeller and Enigk, 1933 from birds and then placed it in the genus *Conspicuum* (placed in *Lyperosomum* by Shtrom, 1940 and concurred in by Skrjabin and Evranova, 1952). Skrjabin and Evranova, 1952, include *P. brauni* Freitas and Lent, 1937 (considered a synonym of *P. illiciens* by Travassos, 1944 and Yamaguti, 1958), *P. fallax* Heidigger and Mendheim, 1938 (considered a synonym of *P. proxilliciens* by Travassos, 1944 and Yamaguti, 1958), *P. muris* Stscherbakova, 1942 (reassigned to the genus *Skrjabinus* (Bhalerao, 1936) Shtrom, 1940 by Yamaguti, 1958) and *P. voluptarium* (Braun, 1901) (considered a synonym of *P. illiciens* by Travassos, 1944, and Yamaguti, 1958). With the exception of *S. muris* the hosts of the above species are birds; *S. muris* is found in a vole, *Sylvaemus sylvaticus*.

P. amazonensis sp. nov. and *P. marmoseti* sp. nov. differ from *Platynosomum* species found in birds in host distribution, and in the following: They are smaller than *P. semifuscum* and have different sizes and ratios between the suckers. They differ from *P. deflectens* by having larger testes and by a different vitelline testes distribution. They differ from *P. illiciens* by having smaller testes and ovary and a less extensive uterine development. They differ from *P. reficiens* in having less extensive vitelline distribution. They differ from *P. ventricosum* by having smaller, not tandem, testes and by having smaller eggs.

P. amazonensis sp. nov. and *P. marmoseti* sp. nov. differ from *P. fastosum* found in mammals in body size and proportions, in having smaller testes and ovary, in the lesser extent of the vitellaria, smaller size of ova, and kind of host. They differ from *S. muris* found in a vole in the markedly lesser anterior extent of the vitellaria.

Platynosomum amazonensis sp. nov. recovered from *C. goeldii* and *S. nigricollis* differs from *P. marmoseti* sp. nov. recovered from *S. nigricollis* in body length and width and in the ratio of these measurements; testes position and size; origin, position, and extent of vitellaria; position of the male genital opening; relative positions of oral and ventral suckers; and extent of uterine development. These two species (while both occur in *Saguinus*) have not been found simultaneously in the same individual host. It is considered most likely that the tamarins are from different localities in South America.

The genus *Platynosomum* thus contains species from a wider host range than has hitherto been reported. Further examination of the livers and gall bladders of South American primates (now being used in many different types of study in this country) should reveal much more of interest to the student of dicrocoeliid trematodes.

Dicrocoeliidae

Platynosomum microrchis Travassos,1916

5 to 6 by 1 to 1.5; greatest width directly behind testes.
Oral sucker 0.46
Acetabulum 0.74 ; 0.29 from oral sucker

Genital pore median and prebifurcal
Testes irregularly round, symmetrical, separated, partly overlapping acetabulum
Cirrus sac relatively small
Ovary irregularly round, well separated from testes.
Vitellaria extracecal, not reaching to testes, extending behind equator.
Eggs 31 to 33 by 18 to 21 μ

Hosts: Porzana albicolle and Rallus cayennensis (birds)
in gall bladder
Locality: Brazil
Reference: Arch.Esc.Agai.Med.Vet., 3 : 23. 1919

Platynosomum muris (Stscherbakova, 1942)

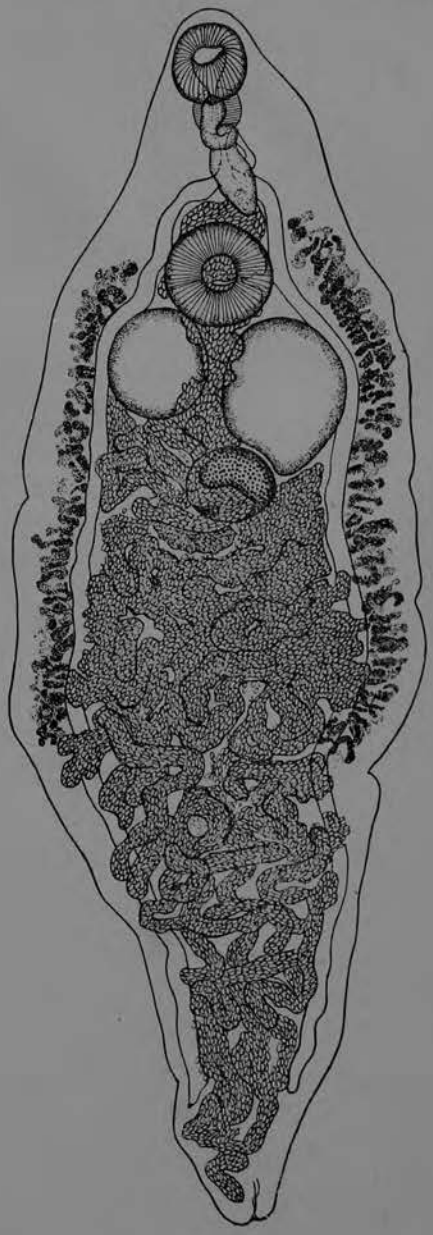
Host: Sylvaemus sylvaticus

Platynosomum muris (Stscherbakova, 1942)

Синоним: *Skrjabinus muris* Stscherbakova, 1942

(Рис. 183)

Хозяин: лесная мышь (*Sylvaemus sylvaticus*).
Локализация: печень.
Место обнаружения: СССР (Армения).
Описание вида (по Щербаковой, 1942). Небольшая трематода



183

183. *Platynosomum muris* (Stscherbakova, 1942) (по Щербаковой, 1942)

-OVER-

TRÉMATODES DE RONGEURS

Platynosomum muris (Stscherbakova, 1942)

Distribution : Arménie (Stscherbakova, 1942, *in* Skrjabin, 1952) ; Suisse *.

Décrit chez un Mulot *Apodemus sylvaticus* en Arménie, ce Trématode n'a pas été retrouvé à notre connaissance depuis la description originale. Nous attribuons à cette espèce deux parasites recueillis dans l'intestin d'un Campagnol roussâtre, *Clethrionomys glareolus*, bien qu'ils diffèrent légèrement de la description de Stscherbakova (1942, *in* Skrjabin, 1952). Nous indiquons ci-dessous les principales mesures de l'auteur russe et les nôtres :

	Stscherbakova (1942)	Auteurs
longueur	3,26 mm	3,1 mm
largeur	1,08 mm	1,1 mm
ventouse buccale .	230 × 220 μ	233 × 219 μ
ventouse ventrale	250 × 270 μ	265 × 237 μ
pharynx	110 μ	120 × 104 μ
œufs	32-35 × 13 μ	33 × 21 (30-38 × 20-24) μ

La longueur et la largeur du Ver ainsi que les dimensions des ventouses et du pharynx concordent d'une manière presque parfaite. Quant aux œufs, leur longueur varie dans des proportions pratiquement identiques. Leur largeur est cependant notablement plus forte dans notre matériel ; il n'est pas exclu que les mesures de Stscherbakova *(op. cit.)* aient été faussées par une mauvaise fixation des œufs. Rappelons que notre matériel a été fixé au formol à 10 % ; le rapport longueur/largeur nous paraît d'ailleurs plus normal dans notre matériel que dans celui de Stscherbakova *(op. cit.)*. Le reste de l'anatomie concorde bien avec la figure donnée par Skrjabin (*op. cit.*, p. 491) à quelques détails près. Ainsi, l'auteur russe constate une différence marquée dans la taille des testicules, ce qui n'apparaît pas dans nos exemplaires ; l'utérus est plus développé dans notre matériel et tend à recouvrir plus largement les vitellogènes (voir fig. 22). Malgré ces petites différences, nous n'hésitons pas à déterminer nos Trématodes comme *Platynosomum muris* (Stscherbakova, 1942), en tenant compte des fortes variations de taille que présentent les parasites de la famille des Dicrocoelides.

Ex Clethrionomys

From Vaucher and Hunkeler, 1967

Dicrocoeliidae

Platynosomum petiolatum (Railliet,1900)

Synonym: Dicrocoelium petiolatum (Raill.,1900)

Length: 6.

Width: 1.6

Oral sucker: 0.36

Acetabulum: (size:) 0.625
(position): neck 1.5 long, 1.3 between centers of suckers

Sucker ratio:

Esophagus: ceca ending 1.6 in front of the pointed posterior end
Pharynx: 0.145 long, 0.208 wide

Genital pore (location): ordinarily at hind edge of pharynx.

Testes, shape: spherical, unlobed

location:

Cirrus sac (extent): slender, reaching under anterior edge of acet.

Ovary, shape:

location:

Vitellaria: at level of testes or directly behind testes and extend to infront of middle of body, extent: 1.75 to 2.

Eggs: 32 to 41 by 20 to 25 μ

Other features:

Host: Garrulus glandarius

Locality: France and ?

Reference: Braun,1902 Zool Jahrb.,16:98-99.

Comparisons: P.reficiens

Life cycle:

f3568plb

Platynosomum proxilliciens (Canavan, 1937)

Синонимы: *Dicrocoelium proxilliciens* Canavan, 1937; *Platynosomum ventroplicatum* Heidegger et Mendheim, 1938

(Рис. 184)

Хозяин: какаду (*Cacatua sulphurea* Gmelin).

Локализация: печень.

Место обнаружения: Азия (Малайский архипелаг).

Описание вида (по Кэневену, 1937). Тело 4,272 мм длины при максимальной ширине 2,208 мм. Ротовая присоска 0,481×0,545 мм; брюшная присоска 0,563×0,663 мм. Фаринкс 0,143 мм в диаметре; пищевод 0,181 мм длины. Семенники лежат по бокам задней половины брюшной присоски; их размер 0,426×0,554 мм. Яичник поперечно-овальный, 0,170×0,463 мм. Половая бурса 0,572 мм длины и 0,272 мм ширины. Желточники начинаются позади семенников и простираются кзади на 1,09 мм. Ширина желточников 0,063 мм. Матка занимает всю заднюю половину тела. Яйца 0,052 мм длины и 0,30 мм ширины.

Этот вид наиболее близок к *Platynosomum fallax* Heidegger et Mendheim, 1938.

Литература: Canavan, 1937, стр. 478—479; Heidegger und Mendheim, 1938, стр. 105, 107 и 674; Travassos, 1944, стр. 97—98.

184

Platynosomum reficiens (Braun, 1901) Travassos, 1918

Синоним: *Dicrocoelium reficiens* Braun, 1901

(Рис. 185)

Хозяин: род—сокол (*Falco nitidus*).

Локализация: кишечник.

Место обнаружения: Бразилия.

Описание вида (по Брауну, 1902). Тело, вытянутое в длину, сплющенное и узкое, достигает 4,00 мм (0,75 мм ширины); задняя часть тела резко суживается позади половых желез.

185

Dicrocoeliidae

Platynosomum reficiens (Braun,1901)

(Synonym: Dicrocoelium reficiens Braun,1901)

Length: 4. elongated, flattened

Width: 0.75

Oral sucker: 0.344

Acetabulum: (size:) 0.4 , with round opening
(position): 0.5, between centers of suckers

Sucker ratio:

Esophagus: ceca to near posterior end
Pharynx: 0.114 long, 0.156 wide

Genital pore (location): not stated

Testes, shape: round

location: close behind acetabulum
Cirrus sac (extent): ?
Ovary, shape: round

location:

Vitellaria: begin in front of testes, from level of middle of acetabulum or from anterior edge to a little past the middle of the body.
Eggs: 32 to 36 by 18 µ (narrower than in other species)

Other features:

Host: Falco nitidus Lath., intestine

Locality: Brazil

Reference: Braun,1902; Zool Jahrb.,16:103-104

Comparisons:

Life cycle:

f3568plb

Dicrocoeliidae

Platynosomum soricis (Diesing, 1850) Baer, 1957

-OVER-

Platynosomum soricis (Diesing, 1850)

Distribution : France, Suisse (JOYEUX & BAER, 1936 *b*).

Nous avons retrouvé ce Trématode chez deux *Crocidura russula* piégées à Neuchâtel. D'après JOYEUX & BAER (1936 *b*), ce parasite est très localisé. Mais, dans les stations favorables, il infeste presque toutes les *Crocidura*. Il est fréquent aux environs de l'Institut de Zoologie à Neuchâtel (Prof. Baer, comm. orale).

FROM VAUCHER AND HUNKELER, 1967

Platynosomum ventricosum (Rudolphi, 1809) Travassos, 1918

Синонимы: *Monostomum ventricosum* Rudolphi, 1809; *Dicrocoelium ventricosum* (Rud., 1809) Braun, 1901

(Рис. 187)

Хозяин: западный соловей (*Luscinia luscinia*).

Локализация: печень.

Место обнаружения: Европа.

Описание вида (по Коссаку, 1910). Тело сужением разделено на две части; длина передней части 2,4 мм, длина задней — 2,7 мм, длина всего тела 5,1 мм. Максимальная ширина передней части тела достигает 1,08 мм; максимальная ширина задней части тела достигает 0,81 мм. Диаметр терминально расположенной ротовой присоски 0,280 мм. Шаровидный фаринкс 0,140 мм в диаметре. Длина пищевода 0,226 мм. Поперечный диаметр брюшной присоски 0,194 мм. Половое отверстие лежит медианно, тотчас перед развилком кишечных стволов. Длина половой бурсы 0,355×0,226 мм; большая часть ее заполнена извитым семенным пузырьком. Семенники лежат в передней части тела и занимают ее бо́льшую часть. Они лежат наискось друг в отношении друга; размер переднего 0,947×0,710 мм, заднего — 0,670×0,495 мм. Шаровидный яичник лежит на границе передней и задней части тела; его диаметр достигает 0,215 мм; он соприкасается с задним семенником. Слабо развитые желточники тянутся в виде узких полос по бокам тела, занимая переднюю половину задней части тела. В задней части тела располагается матка; ее петли имеются и впереди семенников.

Длина овальных, с толстой оболочкой яиц — 0,055 мм при ширине 0,019 мм.

Вопрос о принадлежности этого вида к роду *Platynosomum* вызывает большие сомнения.

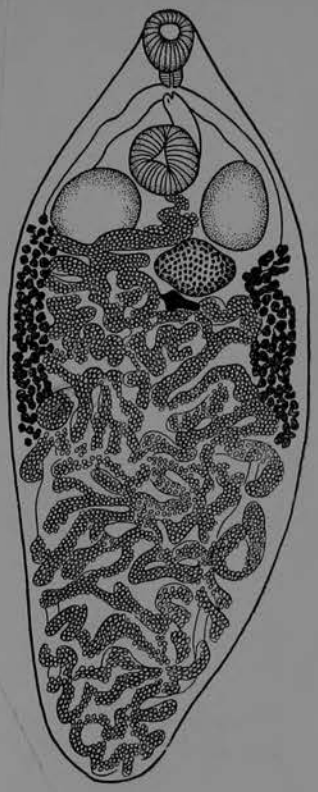
Литература: Rudolphi, 1809, стр. 335; Kossack, 1910, стр. 578; Travassos, 1918; Travassos, 1944.

187

Platynosomum voluptarium (Braun, 1901) Travassos, 1918

Syn: Dicrocoelium voluptarium Braun, 1901

Host: Falco sp.



186

Dicrpcoeliidae

Platynosomum voluptarium (Braun, 1901)
Syn. Dicrocoelium voluptarium Braun, 1901

Length: 3 mm.

Width: 1.3 mm.

Oral sucker: 0.229

Acetabulum: (size:) 0.323, with triangular opening.
(position): Centers of suckers o.5 apart.

Sucker ratio:

Esophagus: Ceca end between hind end of body and vitellaria.
Pharynx: 0.09 wide

Genital pore (location): Opposite hind end of pharynx.

Testes, shape: Oval, larger than ventral sucker.

location: Symmetrical
Cirrus sac (extent): 0.2 long.
Ovary, shape: Oval or four-lobed.

location:

Vitellaria: From level of testes to mid body, 1 mm long.

Eggs: 32 by 22 μ.

Other features:

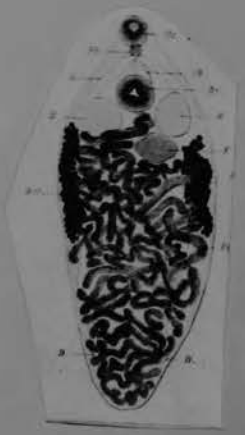
Host: Falco sp. Location: intestine

Locality: Brazil

Reference: Braun, Zool. Jharb, 16:103

Comparisons:

Life cycle:



f3568plb

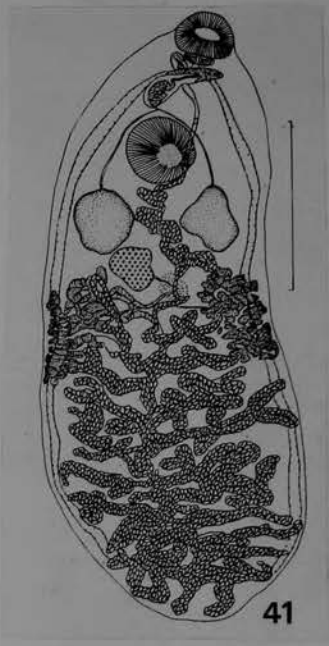
Platynosomum (?) **sp. 1** (Fig. 41)

Only one example was obtained from a wild rat.

Host : *Proechimys longicaudatus* (Rengger)-1 ex.
Habitat : Bile duct.
Locality : Chio, Dpto. Loreto.
Dato : August 21, 1976.

Acetabulum is a little larger than oral sucker. Gonads have undulated margin. Cirrus pouch is apparently longer than oral sucker. Vitellaria are transversely diffusing. Body length is 3.6 mm. Identification will be postponed because references available are still insufficient.

From Miyazaki, Kifune, Habe and Uyema, 1978



41

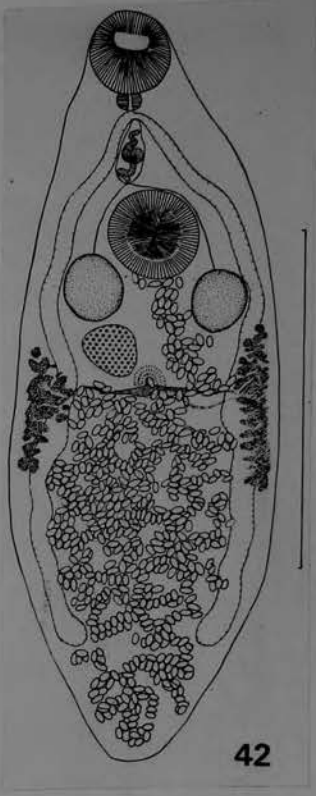
Platynosomum (?) **sp. 2** (Fig. 42)

Only one wild rat harbored about 125 examples.

Host : *Proechimys longicaudatus* (Rengger)-1 ex.
Habitat : Bile duct.
Locality : Chio, Dpto. Loreto. PERU
Date : August 21, 1976.

This trematode is generally allied to the preceding species. But the following characters may be enough to discriminate these species : Acetabulum almost equal to oral sucker in size ; gonads with rounded margin ; cirrus pouch slightly shorter than oral sucker ; vitellaria not diffusing transversely; body length at most 2.2 mm. Although the data are similar to each other, the hosts of the preceding species and the present one are individually different.

From Miyazaki, Kifune, Habe and Uyema, 1978



42

PLATYNOSOMUM

PLATYNOTREMA Nicoll,1914

Dicrocoeliinae of medium size and of moderately flat broad shape and oval outline. Suckers fairly large and ventral sucker situated a short distance in front of the middle of the body. Intestine well developed; esophagus present and diverticula long and sinuous. Genital aperture medi an near the intestinal bifurcation. Cirrus-pouch small and slender. Testes symmetrical,immediately in front of ventral sucker; large,small and simple. Yolk glands lateral, mainly behind the level of the ventral sucker. Uterus highly convoluted, mainly behind the ventral sucker. Ova 24 to 30 b7 15 to 20 µ. Gall bladder and liver of birds.

Type species: P.biliosum Nicoll,1914

Other species: P.jecoris Nicoll,1914

P. INDICA BAUGH, 1957
TO EUPARADISTOMUM by FISCHTHAL AND KUNTZ, 1965

Platynotrema jecoris Nicoll,1914

2.6 to 4.8 by 1. to 1.5
Oral sucker about 0.44 to 0.7 in diameter
Acetabulum 0.55 to 0.77 in transverse diameter.
Sucker ratio about 7:8
Pharynx 0.15 in diameter
Esophagus about 0.21 long
Testes extended transversely, symmetrical, immediately preacetabular
Cirrus sac small and slender, 0.35 long, not reaching testes.
Ovary transversely oval, a little to left just behind acetabulum
Vitellaria lateral from middle of acetabulum to within 0.55 from posterior end.
Eggs 27 to 30 by 18 to 20 µ

Host: Burhinus grallarius (stone-curlew)
Locality: Australia
Reference: Parasit.,7:120-122. 1914

Platynotrema biliosum Nicoll,1914

3.3 to 4.7 by 1.8 to 2.2 ; widest about in middle
Oral sucker 0.55 to 0.64
Acetabulum 0.9 wide; 0.75 to 0.8 long
Sucker ratio about 4:5
Pharynx 0.15 in diameter
Esophagus about 0.2 long
Genital pore median, a little in front of bifurcation
Testes very irregular but not lobed, extended diagonally along edge of acetabulum, symmetrical, preacetabular
Cirrus sac about 0.5 long, slender
Ovary irregular in shape, a little to left behind acetabulum.
Vitellaria lateral almost wholly extracecal from anterior border of acetabulum to a little behind ovary
Eggs 24 to 25 by 15 to 17 μ

Host: Burhinus grallarius (stone-curlew) and Ibis molucca (white ibis) in gall bladder.
Locality: Australia
Reference: Parasit.,7:118-120. 1914

PLATYNOTREMA

Platynotrema Nicoll, 1914

Syn. *Praeorchitrema* Oschmarin, 1952

Generic diagnosis. — Dicrocoeliidae, Dicrocoeliinae, Platynotrematini: Body elliptical to fusiform, widest at middle, scaled all over. Oral sucker subterminal, large, followed by small pharynx. Esophagus short, ceca somewhat undulating, terminating at or near posterior extremity. Acetabulum subequal to oral sucker, pre-equatorial. Testes symmetrical, immediately pre-acetabular, occasionally overlapping acetabulum. Cirrus pouch small, claviform, containing convoluted seminal vesicle, very small pars prostatica and short cirrus. Genital pore bifurcal or prebifurcal. Ovary a little to one side of median line behind acetabulum, nearly equatorial. Receptaculum seminis large, posteromedial to ovary. Laurer's canal present. Vitellaria lateral, in acetabulo-ovarian zone or extending further backward. Uterus strongly convoluted in intercecal field or intruding into postvitellarian extracecal fields, may be convoluted in pretesticular intercecal area; eggs small. Excretory vesicle tubular, reaching to near seminal receptacle. Parasitic in bile duct or bladder of birds.

Genotype: *P. biliosum* Nicoll, 1914 (Pl. 77, Fig. 933), in *Burhinus grallarius* and *Ibis molucca;* Queensland, Australia.

Other species:

P. jacoris Nicoll, 1914, in *Burhinus grallarius;* Queensland, Australia.

P. praeorchis (Oschmarin, 1952), syn. *Praeorchitrema p.* O., in *Capella gallinago;* Russia.

P. upupai Chatterji, 1952, in *Upupa epops orientalis;* India.

Platynotrema biliosum Nicoll, 1914

Синоним: *Eurytrema* (*Platynotrema*) *biliosum* (Nicoll, 1914) Travassos, 1944

(Рис. 189)

Хозяева: авдотка (*Burhinus grallarius*), ибис (*Ibis molluca*).

Локализация: желчный пузырь.

Место обнаружения: Австралия (Квинсленд).

Описание вида (по Николлю, 1914). Тело овальной формы, с заостренными концами, 3,3—4,7 мм длины, при максимальной ширине 1,8—2,2 мм в передней части тела. Длина тела в среднем почти вдвое больше его ширины. Кутикула вся усеяна густо усаженными чешуйками, очень похожими на чешую рептилий. Это придает краям тела зубчатый вид. Часть чешуек заострена на концах, другие — наоборот, притупленные. Ротовая присоска лежит субтерминально и достигает 0,55—0,65 мм в диаметре. Брюшная присоска немного крупнее ротовой, ее продольный диаметр 0,7—0,8 мм, а поперечный — около 0,9 мм. В среднем диаметр брюшной присоски достигает 0,76 мм у экземпляра 4,1 мм длины. Соотношение размеров присок 4 : 5. Брюшная присоска располагается на расстоянии 1,4—2,0 мм от переднего конца тела. Мускулатура присосок весьма слабо развита. Фаринкс достигает 0,15 мм в диаметре; длина пищевода — 0,20 мм. Кишечные стволы расходятся вначале довольно широко, охватывают семенники, после чего снова сближаются. Приблизительно на уровне яичника они направляются к середине тела, но их концы снова расходятся наружу. Их концы отстоят на 0,5 мм от заднего конца тела. Экскреторный пузырь состоит из простого узкого мешка, простирающегося вперед, не доходя немного до уровня расположения яичника. Экскреторное отверстие сдвинуто несколько дорзально. Половое отверстие лежит медианно, немного впереди от кишечного развилка. Половая бурса небольшая, узкая, обычно 0,5 мм длины. В ней заключен крупный семенной пузырек, очень небольшая простатическая часть и короткий прямой семяизвергательный канал. Простатические клетки весьма малочисленны. Семенники расположены симметрично на одном горизонтальном уровне перед брюшной присоской. Иногда они заходят несколько за границу ее переднего края. Частично они могут заходить и за границу кишечного развилка. Они имеют неправильно-лопастное очертание. Диаметр семенников достигает 0,65 мм. Яичник находится почти непосредственно позади брюшной присоски, немного влево от медианной линии; его форма менее лопастная, чем у семенников. Наибольший диаметр яичника около 0,27 мм. Позади него расположен крупный семяприемник. Короткий, прямой лауреров канал открывается непосредственно впереди семяприемника. Желточники располагаются латерально, кнаружи от кишечных стволов. Они простираются от уровня переднего края брюшной присоски и кончаются немного позади уровня яичника. Поперечные желточные протоки соединяются позади яичника. Матка развита не очень мощно. Первые ее петли лежат обычно на левой стороне тела, непосредственно позади брюшной присоски. Отсюда они направляются к правой стороне, причем в этой части матки яйца имеют светложелтый цвет. По мере приближения петель матки снова к левой стороне тела яйца приобретают более темный оттенок. Вследствие этого левый задний конец тела обычно окрашен в темнокоричневый цвет. Проходя вперед, матка снова переходит на правую сторону, откуда она подходит к половому отверстию. Петли матки узкие и разобщенные; они почти совершенно покрывают собой концы кишечных стволов.

189

Platynotrema jecoris Nicoll, 1914

Syn. Eurytrema (Platynotrema) jecoris (Nicoll, 1914) Travassos 1944

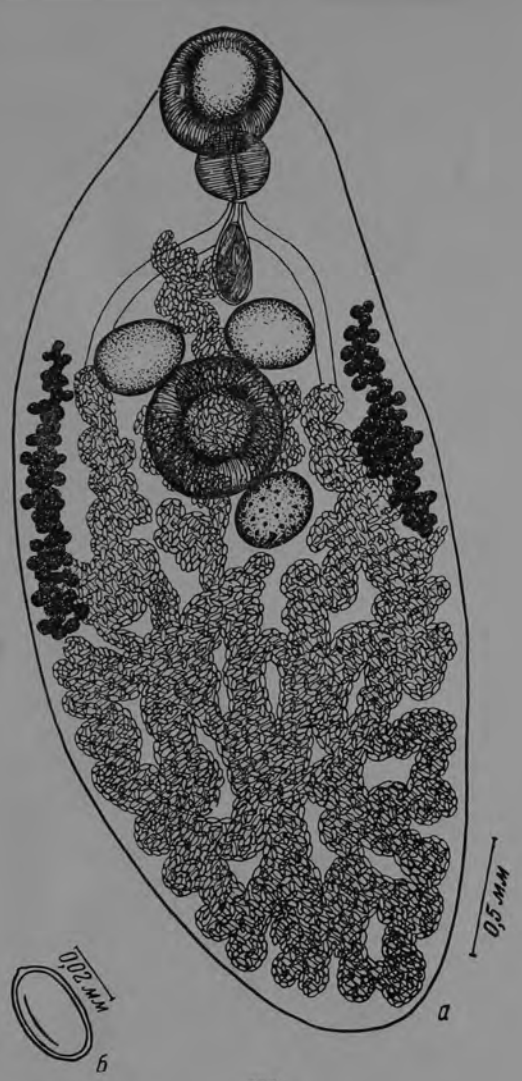
Host: Burhinus ~~jecoris~~ grallarius

190

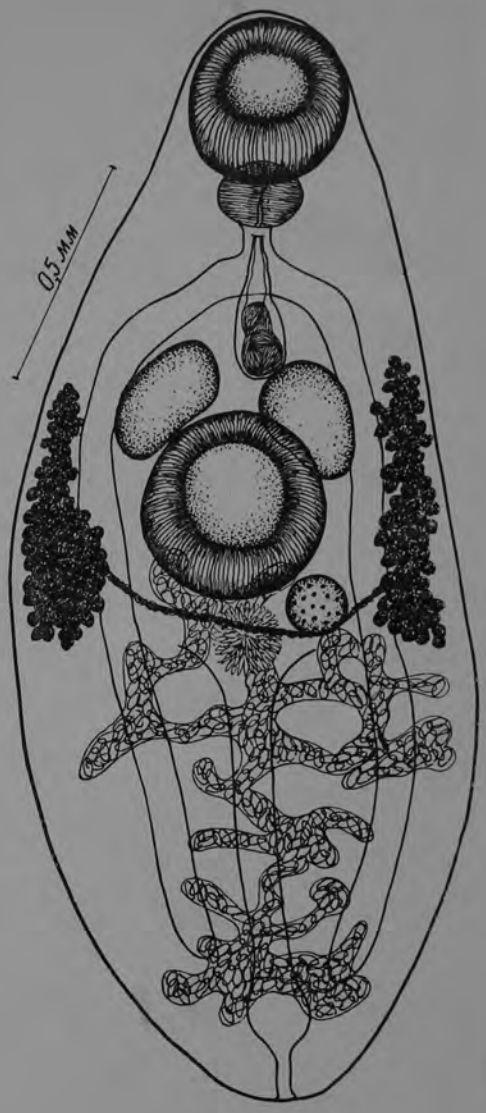
PLATYNOTREMA

Praeorchitrema praeorchis Oschmarin, 1952

Host: Capella gallinago



192



191

PRAEORCHITREMA

Dicrocoeliidae
Dicrocoeliinae

PROACETABULORCHIS Gogate,1940

Dicrocoeliinae with narrow elongated body; cuticule smooth; ventral sucker larger than oral sucker and close to oral sucker; genital pore at base of pharynx; testes asymmetrical,preacetabular, and partially overlapping each other; ovary roundish, dextral,situated in anterior half of body and widely separated from ventral sucker; uterus occupying whole body behind ventral sucker,masking all other details from view; vitellaria lateral,commencing behind ventral sucker,extra,over and occasionally intercecal.

Parasitic in liver of birds.

Type species: Proacetabulorchis prashadi Gogate,1940

Only two other genera with preacetabular testes:
Platynotrema Nicoll,1914 and Euparadistomum Tubangui,1931.

Proacetabulorchis differs in having:
narrow elongated body ;
acetabulum near oral sucker
genital pore at base of pharynx
obliquely situated partially overlapping testes
dextral position of ovary far from ventral sucker
commencement of vitellaria from behind ventral sucker
distribution of uterine coils.

Reference: Records Indian Museum, vol.42:19-23

PROACETABULORCHIS

Proacetabulorchis Gogate, 1940

Generic diagnosis. — Dicrocoeliidae, Dicrocoeliinae, Proacetabulorchiini: Body slender, subcylindrical, unarmed. Acetabulum much larger than oral sucker or nearly equal, in anterior third of body. Oral sucker and pharynx well developed. Esophagus short, ceca terminating near posterior extremity. Testes directly tandem, just behind intestinal bifurcation or juxtaposed immediately in front of acetabulum. Cirrus pouch oval to elliptical, ventral to esophagus, or postbifurcal. Genital pore prebifurcal or postbifurcal. Ovary median, postacetabular, preequatorial. Receptaculum seminis immediately behind ovary. Vitellaria lateral, commencing behind acetabulum. Uterus occupying most of hindbody, overreaching ceca in postvitellarian region; eggs small, dark brown, embryonated. Parasitic in liver or intestine of birds.

Genotype: *P. prashadi* Gogate, 1940, (Pl. 79, Fig. 962), in liver of a bird; India. Also in small intestine of *Halcyon coromanda major;* Japan.

Other species: *P. dogieli* Belopolskaja et Bychowskaja-Powlowskaja, 1953, in *Numenius arquatus lineatus* and *N. cyanopus;* Russia.

Proacetabulorchis dogieli Belopolskaya and Bychowskaya-Pavlobskaya, 1953

see reprint - MAP file

Proacetabulorchis dogieli Belopolskaja & Bychovskaja-Pavlovskaja

Host. Ardea novaehollandiae.

Localities. Brisbane, Qld, 1.ix.1965 (21 specimens). Deception Bay, Qld, 15.viii.1961 (1 specimen; collected *G. Monteith*).

Location in host. Bile ducts.

Incidence. 2 of 2 birds from Qld, none of 14 birds from S. Aust.

Slides deposited. SAM V113, V114.

Description based on 9 stained mounts and 9 specimens in glycerine. (Measurements from stained mounts). The specimen from Deception Bay is much larger than the others, and measurements for it are given separately.

Description.

Body flat, elongate; width generally uniform, slightly greater behind acetabulum, generally behind mid-body. Length 3.4–4.2 mm (3.8), width 544–816 μm (646). Width/length ratio 1:4.8–1:6.9. On body surface, papillae, 18 μm across base, as close as 26 μm apart in preacetabular region, much sparser posteriorly (not apparent in all specimens). Suckers rounded, approximately equal. Oral sucker 329–435 μm (366) long x 294–388 μm (341) wide. Acetabulum, in anterior third of body, 318–412 μm (355) in diameter. Pharynx rounded, 94–112 μm (99) long x 88–118 μm (101) wide. Oesophagus, slightly contracted, 106–223 μm (141) long. Caeca extending to distance 510–816 μm (595) from end of body.

Excretory pore terminal; main stem of bladder bifurcating just posterior to ovary; excretory arms extending to level of pharynx.

Testes 94–212 μm (169) long x 118–247 μm (147) wide; contiguous, generally diagonal. (In 18 specimens, testes of 11 diagonal, 2 approaching tandem, 4 approaching symmetrical, 1 symmetrical). Anterior testis on right or left side; posterior testis slightly dorsal to anterior rim of acetabulum or slightly anterior to latter. Seminal vesicle internal; cirrus in one specimen 176 x 59 μm, with flattened end. Genital pore in region of caecal bifurcation, generally very slightly posterior to latter.

Ovary rounded, 71–153 μm (98) x 82–165 μm (109), median, near mid-length of body. Mehlis' gland somewhat diffuse, posterior and partly lateral to ovary. Receptaculum seminis large, rounded (in four specimens, 165–176 μm (174) x 141–164 (154)), abutting posterior lateral border of ovary.

Vitelline fields mostly extracaecal, from 680–1428 μm (1075) long, sometimes reaching acetabular level anteriorly; posteriorly reaching, approximately, posterior third of body. Follicles up to 82 x 33 μm, mostly in single or double row on each side.

Uterus intercaecal; posterior to caeca spreading out to sides and end of body. Ascending uterus passing dorsal to acetabulum and to testes, to genital pore. Eggs 29–32 μm (30) x 18–22 μm (20).

Specimen from Deception Bay: Length 7.2 mm, width 0.95 mm, width/length ratio 1:7.5. No papillae on surface. Oral sucker 447 x 494 μm, acetabulum 529 x 529 μm. Pharynx 141 x 129 μm, oesophagus 318 μm; caeca ending 1.19 mm from posterior end. Testes diagonal; anterior testis (on left), 517 x 270 μm; posterior, 435 x 282 μm. Cirrus 247 x 59 μm. Ovary 188 x 176 μm. Vitelline fields 2.18 and 2.07 mm, reaching to 2.21 mm from posterior end of body. Eggs 28–31 μm (30) x 17–20 μm (18).

Discussion

Three species have been assigned to the genus: *P. prashadi* Gogate, *P. dogieli* Belopolskaja & Bychovskaja-Pavlovskaja and *P. strigosus* Sudarikov & Pavlov but only *dogieli* agrees with Australian specimens in a sucker ratio approximately 1:1.

We have been unable to consult Belopolskaja and Bychovskaja-Pavlovskaja's description of *Proacetabulorchis dogieli*. Skrjabin (1970) (who followed Bychovskaja-Pavlovskaja (1962) in including the species in *Platynotrema* Nicoll) gave a figure, presumably from Belopolskaja and Bychovskaja-Pavlovskaja (1954), and a description of the species according to Belopolskaja (1954). We have compared our specimens with a further description by Bychovskaja-Pavlovskaja (1954) and with the figure and description in Skrjabin (1970), and conclude that they are conspecific. (Although in the figures given by these authors the vitelline fields appear to be shorter than in our specimens, in the measurements given in Skrjabin (1970) they are comparable with ours). Belopolskaja and Bychovskaja-Pavlovskaja's original specimens were from *Numenius arquatus* and *N. madagascariensis* from Siberia. Fischthal & Kuntz (1974) gave a description of *P. dogieli* from the mangrove heron, *Butorides striatus*, from Sabah, with a discussion of the species. They noted variation in the relative positions of the testes, which were somewhat diagonal in most of their specimens but were frequently symmetrical. As mentioned in our description, the testes in worms from one individual host varied from symmetrical to almost tandem.

FROM ANGEL AND PEARSON, 1977

Род *Proacetabulorchis* Gogate, 1940

Диагноз рода

Dicrocoeliinae. Семенники располагаются в межкишечной зоне кпереди от брюшной присоски, непосредственно позади бифуркации кишечника, один позади другого. Яичник лежит на некотором расстоянии позади брюшной присоски. Желточники начинаются позади брюшной присоски, занимают середину длины тела.

Половая бурса лежит кпереди от переднего семенника. Половое отверстие находится на уровне середины длины пищевода. Кишечные стволы достигают заднего конца тела.

Паразиты кишечника птиц.

Типичный и пока единственный вид: *P. prashadi* Gogate, 1940.

Proacetabulorchis prashadi Gogate, 1940

(Рис. 193)

Хозяин: зимородок (*Halcyon coromanda major* Temm. et Schleg.).

Локализация: тонкие кишки.

Места обнаружения: Индия и Япония.

Описание вида (по Ямагути, 1941). Тонкое, почти цилиндрическое тело, с тупо суживающимися концами, достигает 3,0 мм длины при максимальной ширине 0,31 мм на уровне брюшной присоски. Кутикула гладкая, тонкая. Субтерминальная ротовая присоска 0,165 мм в диаметре; префаринкса нет. Фаринкс 0,065 мм в диаметре. Пищевод около 0,1 мм длины. Бифуркация кишечника лежит на расстоянии 0,82 мм от переднего конца тела. Тонкие кишечные стволы заканчиваются недалеко от заднего конца тела. Резко выступающая брюшная присоска, 0,3 мм в диаметре, располагается в задней части передней трети длины тела. Круглые семенники, 0,13—0,15×0,13—0,14 мм, лежат непосредственно один позади другого, занимают межкишечную зону непосредственно позади бифуркации кишечника, причем располагаются посередине между обеими присосками.

Половая бурса почти эллиптической формы, тонкостенная, 0,070×0,030 мм, своим дном прилегает к переднему краю переднего семенника. Половое отверстие открывается на уровне середины длины пищевода. Бурса заключает в себе маленький овальный семенной пузырек 0,024 мм в диаметре и извитой семяизвергательный канал.

PROACETABULORCHIS